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ABSTRACT

The purposes of this study were to determine the attitudes of selected public school district board members toward inter-school-district cooperation and the extent to which selected variables were related to board member attitudes. Data from questionnaires that sought demographic data, local-cosmopolitan orientation, and other information relevant to the study, were collected from districts in the metropolitan areas of Kansas City, Missouri, and Cincinnati, Ohio. The main hypothesis, that school board members are more favorable toward inter-school-district cooperation on functions with economic implications than they are on functions with social implications, was confirmed. In metropolitan Kansas City, board members with cosmopolitan orientations were found to be more favorable toward inter-school-district cooperation than those members with local orientation. Furthermore, it was found that the social implication of certain functions emerged more strongly when locals were considered than when cosmopolitans were considered. (Author)

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# ATTITUDES OF SCHOOL BOARD MEMBERS TOWARD INTER-SCHOOL DISTRICT COOPERATION

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by
ROBERT P. FAIN

EA 003 085

Kansas City, Missouri
1970

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# ATTITUDES OF SCHOOL BOARD MEMBERS TOWARD INTER-SCHOOL DISTRICT COOPERATION

A DISSERTATION IN
Education

Presented to the Faculty of the University
of Missouri - Kansas City in partial fulfillment of
the requirements of the degree of

DOCTOR OF PHILOSOPHY

by
ROBERT P. FAIN

B.S. University of Kansas City - 1962
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# ATTITUDES OF SCHOOL BOARD MEMBERS TOWARD INTER-SCHOOL DISTRICT COOPERATION

Robert P. Fain, Ph. D.
University of Missouri - Kansas City, 1970

## ABSTRACT

Scope and method of study

The purposes of this study were (1) to determine the attitudes of school board members of selected public school districts in selected metropolitan areas toward inter-school district cooperation, and (2) to determine the extent to which certain selected variables were related to school board member attitudes.

Data were collected from public school districts in the metropolitan areas of Kansas City, Missouri, and Cincinnati, Ohio, by mailed questionnaire. Only those districts in which a majority of the board members responded were included in the sample. These included 156 school board members from 41 school districts. The overall return was 65.13 percent.

The questionnaire sought certain demographic data [e.g., tenure, education, occupation and socio-economic status (SES)], local-cosmopolitan orientation, and other information relevant to the purposes of the study. It contained an attitude inventory and four hypothetical cases of school district cooperation. The cases were intended to serve as checks on the internal consistency of the questionnaire, but yielded other important additional information as well. The attitude inventory contained two scales. Each was based on observations by Oliver Williams that certain functions and services [functions with economic implications (FEI)] are more favorably regarded for cooperative activity than other functions or services [functions with social implications (FSI)]. The questionnaire was intensively field-tested, and the attitude scales were validated prior to final printing and mailing.

Statistical tests employed throughout were the Mann-Whitney U test, the Wilcoxon Sign test, and the Spearman Rank-Order test.

Findings and Conclusions

Comparisons made between this sample and samples in other studies, as well as comparisons between early and late respondents within this sample, indicated that the sample contained in the study could be considered representative of the population of school board members from which the sample was drawn.

The main hypothesis, that school board members are more favorable toward inter-school district cooperation on FEI's than they are on FSI's, was confirmed. It was also found in metropolitan Kansas City that board members with a cosmopolitan orientation were more favorable toward inter-school district cooperation than those with a local orientation were. Furthermore, it was found that the social implication of certain functions emerged more strongly when locals were considered than when cosmopolitans were considered. Tests of these relationships in metropolitan Cincinnati were inconclusive. No evidence of measurable relationships were found between other variables examined in this study and attitudes toward inter-school district cooperation.

Other findings indicated that (1) responses within the questionnaire were generally consistent; (2) preferred partners for cooperation activity are nearby, similar districts; (3) board members are amenable to proposals for cooperative activity with governmental agencies other than school districts, particularly in the areas of planning, and physical and mental health; (4) the superintendent of schools is generally the most decisive influencing factor on school board member attitudes.

## Implications

Although some functions (FEI's) are apparently favorably regarded as voluntary cooperative programs, a voluntary approach to inter-school district cooperation does not appear to be an adequate response to the complex problems of metropolitan area schools. A more viable response would be to incorporate a regional educational authority responsible for carrying out those functions which board members have indicated a willingness to relinquish. Local districts should retain, as much as possible, authority and control in other areas except that operating funds should be provided by the state and physical planning should be the responsibility of a regional planning agency. These last two proposals, particularly, should be intensively studied.

This abstract of less than 600 words is approved as to form and content.

Signed Edwin R. Bailey
Professor in charge of thesis

The undersigned, appointed by the Dean of the School of Graduate Studies, have examined a dissertation entitled ATTITUDES OF SCHOOL BOARD MEMBERS TOWARD INTER-SCHOOL DISTRICT COOPERATION

presented by Robert P. Fain

a candidate for the degree of Doctor of Philosophy

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# CHAPTER I

# INTRODUCTION

## Statement of Purpose and Significance

Quality education for all is a basic value, worthy of pursuit by society and perhaps even vital to our survival as a nation. Unfortunately, the attainment of such a goal is not a probable product of our present arrangements for performing the assorted tasks of public education. The dysfunctional effects of socioeconomic stratification are such that many school districts are too small, too homogeneous, and/or have too limited an access to financial resources (some much more so than others) to provide an effective and efficient system for education.

The usually recommended remedy for the maladies of fragmentation has been some form of reorganization or consolidation. Traditionally, reorganization has been accomplished essentially by combining little school districts to make bigger school districts, centralizing power and authority, and removing policy matters farther and farther from local involvement. But where permissive legislation has made available the choice between retaining control over favored aspects of community life-style and securing the benefits that may accrue from consolidating or reorganizing, the latter have made a poor showing.[1]

More recently educators, sociologists and political scientists have begun to reappraise their reform efforts in response to aroused, often angry and rebellious, public will. Strategies for decentralization and community involvement are being considered more and more as necessary to alter and reverse the alienating inscrutability of massive organizations.[2]

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[1] One can speculate, for instance, on how much more agreeable rural and small town school districts might be to consolidation if the local identity were not so dependent on the high school basketball team.

[2] Much has been written in this context. The following list of references is comprehensive but not exhaustive: Robert Bendiner, The Politics of Schools: A Crisis in Self-Government (New York: Harper & Row, Publishers, 1969); Guy Black, "The Decentralization of Urban Government: A Systems Approach," Paper delivered at the Seminar Series in Professional Urban Public Administration, Center for Management Development, School of Administration, University of Missouri at Kansas City, 1968; Henry M. Brickell, "Local Organization and Administration of Schools" in Edgar L. Morphet and Charles O. Ryan (eds.), Designing Education for the Future, No. 2 (New York: Citation Press, 1967); Mayor's Advisory Panel on Decentralization of the New York City Schools, Reconnection for Learning, a Community School System for New York (New York: Ford Foundation, 1967); Carroll F. Johnson and Michael D. Usdan (eds.), Equality of Educational Opportunity in the Large Cities of America: The Relationship Between Decentralization and Racial Integration (New

Functional approaches to reorganization, which propose that certain functions must be handled at a level close to the public being served in order for the service to readily respond to fluctuating needs and demands, are frequently mentioned. Functional organization of services or tasks recognizes that due to prohibitive costs and/or population characteristics, certain functions or services would not (or could not) be carried out by autonomous local school districts, but these functions could be performed effectively and economically if school districts could agree to pool resources and share responsibility for providing certain services.

Whether school board members are inclined to agree to such combined efforts is another question and the principal one to which this study is directed. What are the attitudes of school board members toward interlocal cooperation? What school district functions are board members more willing to relinquish to

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York: Teachers College Press, Columbia University, 1969); Missouri School District Reorganization Commission, School District Organization for Missouri (November, 1968); Austin D. Swanson, "The Governance of Education in Metropolitan Areas" in Troy V. McKelvey and Swanson (ed.), Urban School Administration (Beverly Hills: Sage Publications, Inc., 1969); Statement by the Research and Policy Committee. Reshaping Government in Metropolitan Areas (New York: Committee for Economic Development, February 1970).

cooperative activity? To what extent do certain factors influence school board members' attitudes? With what agencies or other school districts do school board members seem likely to cooperate? Answers to such questions will help determine what kind of approach to inter-district cooperation would be amenable to school board members, and whether modern educational programs and services can be organized and made accessible to all the students of the metropolitan regions.

## Background of the Study

The need for cooperative effort in the provision of municipal and educational services is treated at length in the literature relevant to metropolitan government. Reports of the Advisory Commission on Intergovernmental Relations provide a comprehensive view of the economic and social dysfunctions associated with the fragmented condition of local governments in metropolitan regions.[3] A number of writers have analyzed these dysfunctions and have offered suggestions for rationalizing the governing of metropolitan areas. Martin,[4] for instance, has identified sixteen operable or proposed methods by which local governmental units can adapt, procedurally and structurally, to pressing needs and circumstances. These methods span a range from informal cooperation and parallel action or joint powers as procedural devices, to metropolitan government and regional agencies as structural devices. Martin's schema, building as it did on an extensive literature dating to 1939,[5] helped Oliver Williams to suggest that many social scientists have spent much of the second quarter of this century showing the necessity for rationalizing metropolitan government by any one of various means.[6]

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[3] Advisory Commission on Intergovernmental Relations 1959 to present.

Governmental reform, particularly as such reform relates to the operation of school districts, has not been universally acknowledged. It is not so much that arguments for rationalizing the ways and means of conducting our aggregate social affairs are not compelling, but that preachments in favor of protecting valued traditional precepts of self-government are so compelling in their own right. The next two sections of this chapter are devoted to presenting the cases, both for and against reforming the organization of school districts, as objectively as possible, considering the value-laden content. The first of these sections is an analysis of the social, psychological and economic factors which indicate a strong need for restructuring the relationships between educational administrative units or school districts. This section is followed with a presentation of the deep-seated social and political considerations usually invoked by those who oppose such change. These arguments are offered in support of the proposition that regardless of how demonstrably eminent the needs for certain structural or administrative changes are to advocates of reform, the canned campaign pronouncements of reformers usually aimed at educating the public miss their mark primarily because they are fired at the wrong target. Opponents of plans for governmental reform may or may not need educating as to the necessity of reform. What is more important to understand is that they are frequently acting from a different set of presuppositions, presuppositions that are equally worthy and historically honored but, until the recent ascent of community control advocacy, frequently dismissed as "status quo-ism."

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[4] Roscoe C. Martin, Metropolis in Transition (Washington, D.C.: Housing and Home Finance Agency, 1963).

[5] See Albert Lepawsky, "Development of Urban Government" in Urban Government: Supplementary Report of the Urbanism Committee to the Natural Resources Committee, I (Washington, D.C.: 1939).

[6] Oliver P. Williams, "Life Style Values and Political Decentralization in Metropolitan Areas," Southwestern Social Science Quarterly, XLVIII (December, 1967), 299-309.

## Conditions Indicating a Strong Need for Restructuring the Interrelationship Between School Districts

Rational government, as first perceived by reformers, embodied order and efficiency and, of course, denied waste, graft and corruption. The intent of reform was to impose structures and procedures by which the business of governing could be expedited in the most efficient and effective way. Understandably, with the focus on the goal of efficient operation, attention first turned to the problems of financing municipal services across metropolitan regions, regions that were becoming notorious for the proliferation of local governments and vast inequities in financial resources.

By 1970 the problem of financing services had been joined by a whole set of maladies often lumped under the provocative term "the urban crisis." In fact the early emphasis on urban economics had been displaced (but not replaced) in favor of the position that financial resources or access to revenue and ability to pay are perhaps symptomatic of more basic sociological phenomena. Daniel Moynihan expressed this position at an Indianapolis meeting of the President's Urban Affairs Council when he identified poverty and the social isolation of minority groups as the major problems facing American cities.[7]

Daniel Levine and Robert Havighurst brought this position directly to bear on the problems facing urban school districts when they pointed out that

> the manner in which educational services are provided can no longer be viewed apart from the social and demographic context in which the schools function. Among these problems are the proliferation of governments incapable of dealing with serious issues, socioeconomic stratification and racial segregation, fragmentation among socializing and educative institutions, and the weakening of social and political consensus which has occurred as a result of the way urban society has evolved in the United States.[8]

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[7] Kansas City Star, Feb. 6, 1970, page 1, col. 6.

[8] Daniel U. Levine and Robert J. Havighurst, "Emerging Urban Problems and Their Significance for School District Organization in the Great Plains States" in Planning for School District Organization -- Selected Position Papers (Lincoln, Nebraska: The Great Plains School Organization Project, June, 1968), p. 250.

## Factors associated with socio-economic stratification

The socio-economic stratification typical of metropolitan regions[9] has resulted in "communities in which it is less and less common to find people of differing economic status living in close proximity to each other."[10] This condition is enforced by social and political institutions such as zoning laws, building codes, and overt prejudice.

Thus, the urban observer today notes that the "central city has a monopoly of the very poor and ethnic populations [while] the suburbs have most of the wealthy residents of a metropolis."[11] Since certain racial or ethnic minority groups, particularly Negroes, count many of their members among the poor and lower class,[12] the condition of social stratification can also be translated as racial segregation.

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[9] James R. Pinkerton, "City-Suburban Residential Patterns by Social Class: A Review of the Literature," Urban Affairs Quarterly, IV (June, 1969), 499-519.

[10] Levine and Havighurst, p. 260.

[11] Scott Greer, Governing the Metropolis (New York: John Wiley and Sons, Inc., 1962), p. 34.

[12] Ibid.

The social and psychological impact of such culturally-enforced isolation of some groups from others has direct implications for education. Haggstrom, for instance, has noted the emergence of a fatalistic ethos characteristic of certain segregated, impoverished groups which is essentially an abject feeling of hopelessness that nothing one can do will have any influence on his situation.[13] Coleman related this to the educational problems in the inner city by noting that a feeling of control over one's future is the most important attitudinal variable associated with student achievement.[14] The Coleman Report bore especially on the impact of socio-economic stratification on student achievement. Coleman concluded that the educational background and aspirations of a student body are more strongly related to achievement than any other school-related variables.[15] This assertion has been criticized for creating an aura of pessimism as to the ability of educators to provide effective educational programs.[16]

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[13] Warren C. Haggstrom, "The Power of the Poor" (Philadelphia: paper presented to the American Psychological Association, August 29-September 4, 1963).

[14] James S. Coleman, Equality of Educational Opportunity (Washington, D.C.: U.S. Government Printing Office, 1966).

[15] Ibid.

[16] Daniel P. Moynihan, "Sources of Resistance to the Coleman Report," Harvard Educational Review, XXXVIII (Winter, 1968), 23-36.

But even his critics have noted that it is difficult to determine

> how pronounced the differential effects are or how far one may go in attributing difference in school effectiveness to variations in the schools per se (the teaching, the curriculum, the facilities, the general atmosphere) as contrasted to the variations in the quality and character of the communities of people who support the schools and whose children the schools serve.[17]

The Coleman Report concluded that family factors, which in the aggregate determine quality and character of the community, are the single most important determinants of academic success at school.[18] Furthermore, Coleman's data suggested that students from communities or with backgrounds characterized by a demonstrated lack of concern for academic success (other than an occasional, prompted response of "Yes, I want my child to have a good education"), tend to do significantly and consistently better work when placed in a school situation where the educational aspirations of a majority of the students are high.[19]

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[17] Henry S. Dyer, "School Factors and Equal Educational Opportunity," Harvard Educational Review, XXXVIII (Winter, 1968), 45.

[18] Coleman.

[19] Ibid.; See also David K. Cohen, "School Segregation and Desegregation: Some Misconceptions" in Troy McKelvey and Austin Swanson (eds.), Urban School Administrator (Beverly Hills: Sage Publications, Inc., 1969).

At first glance, this discussion might appear to be of small concern to the education of the large number of middle-class white children who may possess the motives and skills which are an important determinant of academic success. But one must admit, that to the extent homogeneous middle-class communities are shut off from significant interaction with a large portion of the rest of society, they are also segregated. It may be true that such social isolation has had few debilitating effects on the academic achievement of middle-class children as generally measured by standard achievement tests. But cause for concern does emanate from the probability that this group, as well as more disadvantaged groups, may be severely limited in learning to cope with a diverse range of people. Without personal involvement with diverse groups, one is unlikely to learn to think of unfamiliar groups except in the sensational terms of the mass media and negative stereotypes held by significant others.

Pettigrew, in a discussion of racial isolation's negative effects stated that

> . . . Negroes and whites kept apart come to view each other as so different that belief dissimilarity typically combines with racial considerations to cause each race to reject contact with the other . . . . . . . . . . . . . . . . . . . . . .

> . . . the tension that characterizes many initial interracial encounters in the United States . . . is the direct result of the racial separation that has traditionally characterized our society.[20]

Friendly and empathetic relationships with individuals or groups of different racial or ethnic backgrounds probably cannot develop without significant contact between such individuals and groups. However, this assertion is not sufficient evidence to suggest that such favorable relationships will develop even if sustained contact is made under peaceful, friendly circumstances. But the research in these areas has given substantial positive support to the proposition that this is the case. The U.S. Commission on Civil Rights, for one stated that

> . . . school desegregation has its greatest impact upon student attitudes and preferences through the mediating influence of friendship with students of the other race . . . having attended schools with students of the other race and having friends of the other race contribute to preferences for desegregation. The effect is strongest for students who have had both experiences.[21]

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[20] Thomas F. Pettigrew, Racially Separate or Together? (New York: Antidefamation League of B'nai B'rith, 1969), pp. 8-9.

[21] U.S. Commission on Civil Rights, Racial Isolation in the Public Schools, I (Washington, D.C.: U.S. Government Printing Office, 1967), p. 111. A recent study involving students from predominantly black high schools in Kansas City, Missouri stated:

> . . . it is reasonable to conclude that contact with whites, attitude toward whites, and trust in whites are interrelated

## Financial factors

The stance taken in this paper presumes that social factors may have more pervasive implications for providing adequate educational services to all residents of a metropolitan area, than financial factors. However, financial factors must still be regarded as an important determinant of educational quality. One

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> in the following way: Black students who know few if any whites often tend to be hostile and distrustful toward whites. As students come into closer contact with whites, they begin to develop a degree of liking and trust for some whites. As students learn that they can trust some whites, they become less hostile toward whites and tend to interact with more whites. Interaction, in turn, further reduces their distrust and dislike toward whites. If black students have an opportunity to get to know a sufficiently large number of whites on a personal level, they frequently overcome their underlying distrust of whites and develop positive attitudes toward those whites whose behaviors may seem to justify respect and admiration.

Daniel U. Levine and Norman Fiddmont, "Attitudes and Experiences Influencing Civil Rights Viewpoints Among Negro High School Students in Kansas City, Missouri," Kansas City: Center for the Study of Metropolitan Problems in Education, University of Missouri – Kansas City, April, 1969, p. 13, (Mimeograph). Work from other fields that substantiates the notion that interaction is necessary to the development of favorable relations between groups includes: Daniel M. Wilmer, Rasabelle P. Walkey, and Stuart W. Cook, Human Relations in Interracial Housing (Minneapolis: University of Minnesota Press, 1965); Robert Zajone, "Brainwash: Familiarity Breeds Comfort," Psychology Today, III (February, 1970, 33-35, 60-64.

of the strongest criticisms of the Coleman Report is that his choice of standard for academic achievement— verbal ability — neglected areas of student growth associated with "curriculum-related" content, that is, the things students actually study in school, e. g. literature, mathematics, accounting. Dyer, reporting on several studies which attempted to isolate factors associated with achievement in content areas suggested that such financially-related commodities as the quality of the teaching staff, facilities, richness of curriculum, etc., make a genuine difference in pupil growth.[22]

Coleman acknowledged that the quality of teaching and facilities account for some of the variance in student performance. It is especially true in schools for disadvantaged children that differences in teacher quality have a more pronounced effect than in middle-class schools.[23] Burkhead, Fox and Holland, addressing the relationship between school financial inputs and school outputs, have both confirmed and expanded on Coleman's work. They concluded that 1) family income was the single most important indication of a student's school success, and 2) to the extent that more money to the schools makes much difference in terms of an improved output, it has to be far more money, truly massive concentration of funds to particular programs.[24] A massive infusion of funds might well be expended to provide salary schedules of adequate means to attract very competent, well-prepared teachers, psychologists, curriculum experts and consultants; provide libraries; build laboratories of various kinds; provide necessary enrichment or compensatory programs; contract for specialists to carry out performance criterion contracts or purchase many of the new products of advancements in educational technology. Advancements in technological hardware, such as electronic instruction systems, material storage and retrieval systems, multi-media instructional systems, the components of computer-assisted instruction systems, and the like, have the capability to make revolutionary modification in the educational process. But, at the same time, the capabilities of such systems often are available at expenses so great that school systems with small enrollments or low valuation may only ponder their existence.

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[22] Dyer, pp. 45-46.

[23] Coleman.

The proliferation of local governments of a metropolitan area and their characteristic inequities in financial, as well as social, resources create severe problems for the operation of educational systems. The small size and homogeneity of the many local units of government create widely varying conditions in the fiscal resources available to support government services. This often results in a metropolitan mosaic of large and small, rich and poor school districts, virtually side by side. Across the Kansas City Metropolitan Area, which includes two states, one could find tax levies assessed at from twenty cents per $100 valuation in a highly-industrialized school district with a small student population, to $13.25 per $100 valuation in a lower-middle-class suburban district.[25] Even within the Missouri portion of the area, the distribution of wealth showed wide discrepancies between school districts bordering one another. A case in point was the situation of a school district valued at the rate of $5,153 per child in average daily attendance (A. D. A.) directly adjacent to a school district valued at the rate of $10,642 per child in A. D. A.[26] Another indication of this vast discrepancy in valuation and assessment of school districts across a metropolitan area was seen from the fact that in 1967-68 a levy of one dollar for every $100 of valuation could raise $134 for one district, but only $46 for another.[27] A select few even took extreme steps to retain a privileged tax shelter at inexcusable expense to other districts. Patrons of what was formerly the richest school district in Missouri, a highly-industrialized area of Kansas City, with a student population of only 9 (projected for the 1969-70 school year), put together a skillfully coordinated plan, which was successful even to the point of bringing about the essential rezoning of certain property, to develop a trailer park for the purpose of accommodating at least 50 trailers, thereby increasing the student population to the new state minimum requirement of 15 pupils in average daily attendance.[28] That such a plan is ingenious should not obscure the fact that in Missouri at least, subterfuge in one district actually took dollars away from other school districts in its county. In Jackson County the tax-dodging of this one district was reducing the annual funds available to other school districts by as much as $400,000.[29]

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[24] Jesse Burkhead, Thomas G. Fox, and John W. Holland, Input and Output in Large-City High Schools (Syracuse, N.Y.: Syracuse University Press, 1967).

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[25] Kansas City Star, May 15, 1969, Sec. A, p. 11.

[26] Kansas City Star, March 5, 1969, Sec. A., p. 9, col. 2-6.

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[27] Ibid.

[28] Kansas City Star, August 12, 1969, p. 3, col. 1; Because of the small size discussed here this district was dissolved of legal status in August, 1969, and designated "closed" in accordance with section 171. 121 revised statutes of Missouri.

Financial inequities were not all as sensational as this, but those that come about through the gradual process of metropolitan growth and aging probably have more impact on the individual property owner. Negligent enforcement of reassessment laws has produced gross examples of differential assessment of property whose real value may be near equal. The situation may be that in older parts of a metropolitan area property is still being assessed at some portion of its value thirty years ago, while homeowners in suburbia or owners of new homes in the central city may be assessed on the basis of some portion of today's soaring costs.[30] If such publicly-acknowledged inequities in the metropolitan tax structure were not enough to provoke citizen reaction, the differentials in capacity or inclination to pay should. The current principal source of most school revenue, the property tax, places a burden on the poor and the aged with fixed incomes. "The poor usually spend a larger share of their income on housing than rich people and thus are liable for proportionately larger tax payments."[31] Due to lagging increases in Social Security payments, it has become necessary for those on the fixed income of Social Security benefits to set aside an increasing portion of their income to pay rising taxes.[32]

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[29] The presence of a very low taxing district in a county brings down the average county tax rate which is the rate applied to railroads and utilities, one of the sources of property tax. In Jackson County if the district with a 20¢ levy were omitted and the average tax rate figured on the basis of how other school districts in the county tax their property holders, the revenue earned from railroads and utilities would jump 7% or about $400,000. Kansas City Star, May 15, 1969, Sec. A, p. 11.

[30] Kansas City Times, April 11, 1969, p. 3, col. 4; Kansas City Star, May 22, 1969, p. 3, col. 2-3.

Faced with such gross inequities and the increasing erosion of the dollar, many of those in a position to support necessary increases in tax levies may view such inequities in assessment practices as unfair, and many of those in the position to benefit by the situation are not financially able to support tax increases on property with even a relatively low valuation.[33] This situation was partly responsible for the tax revolt which struck the Kansas City Metropolitan Area the spring of 1969, when seven out of twelve school districts met defeat in an initial attempt to increase their operating levies.[34] Across the nation, voters voiced similar and often much stronger protests, and in Youngstown, Ohio, where the school district had been unable to rally enough support to increase its operating levy since 1963, the schools were closed in mid-November, 1968. They were able to open again, on a tenuous basis, only after tax revenues became available after January 1, 1969.[35]

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[31] Kansas City Times, April 11, 1969, p. 3, col. 4.

[32] Kansas City Star, May 15, 1969, Sec. A, p. 11.

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[33] Estimates are that it cost 29.2 billion dollars to operate the nation's schools in 1968-69; this represents an increase in 15.7 billion dollars over costs for 1957-58. In Philadelphia alone it is estimated that the cost of operating the schools at minimum standards is increasing at a rate of 14 percent per year. Kansas City Star, May 15, 1969, Sec. A, p. 11; For similar figures see also Robert Bendiner, The Politics of Schools: A Crisis in Self Government (New York: Harper & Row, Publishers, 1969), p. 130.

[34] Kansas City Star, April 2, 1969, p. 1, col. 5.

[35] Kansas City Star, Nov. 24, 1968, Sec. A, p. 20, col. 2-5.

## Factors related to size

Criticism rebuking the rich little school district promoting the trailer court business could have been leveled at the efficacy of its attempt to operate a school for only 15 or 20 students. Admittedly, studies invoking the size factor on educational achievement have generally been inconclusive with the possible exception of the generalization that although "size in and of itself is not important: it is related to the objectives upon which a school system organization is based."[36] The tasks that size can promote are generally the efficient and economical accomplishment of administrative functions. Inman presented a comprehensive review of studies on size, including elementary school size, high school size and district size. The following represent some of his general conclusions.

> Elementary schools should have an optimal figure of 300-500 students.
>
> The optimal size for high schools ranges from 500-2,000 students.

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[36] William E. Inman, "Size and School District Organization" in Planning for School District Organization – Selected Position Papers (Lincoln: The Great Plains School District Organization Project, June, 1968), p. 159.

> The range of optimal size for a school district seems to be from 10,000 to 50,000 students.[37]

Inman's review further suggested that very small size adversely affects the quality of education offered. It is essentially beyond the capacity of small schools and school districts to provide the breadth of programming a large school can, or to effectively utilize the special training of teachers. Furthermore, such schools and school districts (1) find administrative costs disproportionately high; (2) have fewer special services and support personnel; (3) have limited access to fiscal resources; and (4) pay lower salaries for teachers.[38]

All-in-all, the available evidence tended to support the proposition that school districts must be so organized as to provide adequate size and financial resources, as well as sufficient heterogeneity of population to provide an appropriate socio-economic composition of a given school's student body, if the goals of effective education for all students and economical operation of our schools are to become realities. This proposition explicitly suggests a structural reorganization of existing school district patterns.

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[37] Ibid.

[38] Ibid.

### Social and Political Considerations Antithetical to Alterations in Existing Patterns of School District Interrelationships

Large-scale structural reorganization appears to be at odds with deeply-ingrained political values. The traditional school district, as a governmental unit responsible for providing certain services and empowered to levy taxes, manifests the American ideal of "small neighborhoods, single homes, and political jurisdictions of limited size" with the concomitant traditions of autonomy and local control.[39] The concept of local government as a safeguard against the vested interests and tyranny of a larger, bureaucratic state has long reigned as a guiding principle in American political thought.[40] The appeal of small government was amply demonstrated by this excerpt from the letter of a concerned citizen regarding a proposed plan for school district reorganization.

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[39] Robert Wood, Suburbia: Its People and Their Politics (Boston: Houghton Mifflin Co., 1959), p. 20.

[40] Scott Greer, "The Shaky Future of Local Government," Psychology Today, II (August, 1968), 64.

> Does the editor really think we are so naive as to expect giant systems will lower taxes, or that any better educational program will result? Why should a system administering 45,000 students be able to give a better education than one administering 2,000 students? What is wrong with American thinkers that they can think only in terms of big government, big business, big schools, and so on?[41]

Many writers in the field have criticized the structural reform-oriented scholars for beginning their research "with prior assumptions about the desirability of metropolitan governmental integration" and defining good government as "technically proficient administration," overlooking the grass roots appeal of small governmental units and access to policy makers.[42] Robert Wood added

> . . . the reformers have offered only an alternative program for better metropolitan financial and administrative management; they have never promised a better brand of politics.[43]

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[41] "Speaking the Public Mind," The Kansas City Star, December 11, 1968, Sec. E, p. 14, col. 8.

[42] Thomas R. Dye and Brett W. Hawkins (eds.), Politics in the Metropolis (Columbus, Ohio: Charles E. Merrill Books, Inc., 1967), p. 397.

[43] Wood, p. 86.

Adrian noted that reformers have consistently applied concepts deriving from the Rational Man fallacy and the Efficiency-Economy fallacy.[44] The former assumes that "if you give people the facts they will act in favor of metropolitan-wide government and other objectives of the reformer."[45] The latter assumes that the upper-middle-class concern for efficiency and economy is highly valued by "hoi polloi" when access to decision-makers and a sense of having councils and boards that are representative is a higher order of values.[46] That both positions are labeled fallacies aptly predicts the fate that befalls most proposals to reform metropolitan government. In a critical comment on such proposals Adrian stated

> The metropolitan reform leader has typically spent his years in constructing models which are unconcerned with belief systems other than his own, and he has built into his models assumptions about psychological motivation and rationality that are as unrealistic as were those of John Locke, Jean Jacques Rousseau, or Adam Smith. No wonder that he has so often gone

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[44] Charles Adrian, "Public Attitudes and Metropolitan Decision Makers" in Dye and Hawkins (eds.), Politics . . ., p. 456.

[45] Ibid. [46] Ibid.

> around the day after an election muttering about "selfish, narrow-minded voters" and "self-seeking politicians."[47]

The rejection of the Missouri School District Reorganization Commission's 1969 proposal for reorganizing Missouri school districts was a dramatic example of Adrian's higher order of values in operation. In essence the Commission's proposal espoused a complex form of functional consolidation in which responsibility for some functions was to be lodged in a large regional unit while other functions were to be retained in smaller, local districts.[48]

Even though it largely retained the concept of local level government, this plan was bitterly opposed by suburban and rural groups on the grounds that the Commission consultants failed to provide sufficient hearings, as promised, to local school boards and officials, and because:

> It proposed legislation for mandatory adoption of the plan
>
> It vested taxing and negotiating power in the large, regional district

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[47] Ibid., p. 457.

[48] Missouri School District Reorganization Commission, School District Organization for Missouri (November, 1968).

> It would promote the growth of unionism among professional employees[49]

The first grievance was essentially a public relations error, but each of the other points of conflict can be viewed as removing highly-valued areas of local initiative to a more distant, less representative administrative and policy-making body.

The dichotomy suggested between the "economy-efficiency" model vs. the "local control" model was vividly evident during the controversy which was stirred over alternative plans to carry out mandatory unification in Northeast Johnson County, Kansas. Two serious proposals were offered. One encompassed a "super board" concept or two-tier plan which provided for a district or regional board over-seeing or coordinating several smaller area boards, each of which would have retained a measure of autonomy. The other called for unification under one board. In a position paper to the legislature, the majority of the members of the high school board, whose boundaries also marked the boundaries for unification, cited the economy-efficiency model in opting for a one-board plan. They proposed that a super board would be "impractical, administratively wasteful and unclear in its delineation of areas of responsibility among the various boards."[50] The minority report invoked the "local control" model, stating the multi-district concept" most aptly describes the wishes of the patrons of the area. It provides an opportunity for local control and involvement."[51]

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[49] Kansas City Times, January 8, 1969, p. 3, col. 1.

There is compelling evidence that school patrons are strongly inclined toward the side of local control. When a school superintendent made the following remarks before a group of parents and interested citizens gathered to discuss the school reorganization proposal in Missouri, he received a standing ovation.

> Local control of schools by the people has been one of the key concepts unique in this country from the beginning.
>
> In these days of bigger and bigger government,the control of the destiny of the local school is about all the people have left. I seriously question the wisdom of removing control of public schools from the people.[52]

School boards appear to be fearful of losing their autonomy, and parents are equally fearful of losing what control they have in their individual districts, and perhaps with some cause. Evidently the balkanized system of government characteristic of metropolitan regions is not a transitory phenomenon, but durable and, in a fashion, workable. Adrian notes that it operates as a kind of co-operative federation through "elaborate procedures and rituals for consultation and negotiation" which secures government while retaining for the people "a psychological sense of having access to decision-makers and of having decision-makers who are representative of their interests and protective of their preferred life-styles."[53]

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[50] Kansas City Star, January 1, 1969, Sec. A, p. 24, col. 1.

[51] Ibid.

[52] Kansas City Times, January 8, 1969, p. 3, col. 1.

In the case of school districts, school board members are the politically-designated representatives said to be representative of the public's interest and protective of their life-styles.

Even though studies in the areas of behavioral science, political science and education have clearly established the need for regional cooperation in the performance of municipal and educational services, programs designed to arrange such a regional complexion in government have generally been rejected. Scott Greer and Robert Wood have suggested that, among other things, this was due to a lack of understanding about attitudes for or against reorganization, consolidation or other formalized arrangements for cooperative action.[54] To Austin Swanson it seemed evident enough that

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[53] Adrian, p. 456; See also John C. Bollens, editor, *Exploring the Metropolitan Community* (Berkeley and Los Angeles: University of California Press, 1961), p. 70, for comments on the capacity of local governments to "muddle through."

> the nation faces a dilemma of meeting central educational objectives with a decentralized educational structure. Experience reveals that there are serious constraints on the extent to which that structure may be centralized. Experience also reveals that the decentralized structure permits some very harmful inequities. The time has come to carefully examine the supportive functions of public education in order to determine under what conditions they can most effectively be carried out.[55]

## Variables and Hypotheses

In line with the professed need for examining procedures for carrying out the supportive functions of education and the stated purposes of this study, certain variables were identified, and testable hypotheses were developed.

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[54] Greer, Governing the Metropolis, p. 34.

[55] Austin D. Swanson, "The Governance of Education in Metropolitan Areas" in Troy V. McKelvey & Swanson (eds.), Urban School Administration (Beverly Hills: Sage Publications, Inc., 1969), p. 188.

Oliver Williams[56] and Vincent Marando[57] have suggested that the nature of the function itself should be taken into account when assessing attitudes toward inter-governmental cooperation. Williams, in particular, proposed that citizens and officials would be decidedly less favorable toward cooperation for performing functions that may have critical social implications for a community's life-style, than they would be toward cooperation on functions which have primarily economic implications. The nature of the supportive function (social implications, or economic implications) is one variable.

Certain other variables considered in this study were selected because each has been identified in other studies of school board members and local government officials (see Chapter II) as yielding useful descriptive data, or because there was reason to believe that each may be correlated with attitudes and behaviors. These variables are: length of time on the board, educational background, occupation and provincialism. Provincialism is defined as the extent to which one confines his interests to one community, or "identifies and relates himself to issues, events and organizations outside the local community.[58] In this study these variables were called tenure, socio-economic status (SES) and localism, respectively.

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[56] Williams.

[57] Vincent L. Marando, "Inter-Local Cooperation in a Metropolitan Area: Detroit," Urban Affairs Quarterly, IV (December, 1968), 185-200.

It was also of interest to assess the relationship of certain generally-assumed influential people or groups (the superintendent, most fellow board members and the majority of constituents) with board member attitudes toward cooperation. In addition, it was reasonable to expect that sources of influence (i. e., sources of guidance and information) may notbe the same for attitudes about functions with social implications (FSI) as for attitudes about functions with economic implications (FEI). The possibility of such selective influence was explored.

The availability of a suitable partner may also be a factor to be considered in accounting for attitudes toward cooperation.

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[58] Oliver P. Williams, Harold Herman, Charles S. Leadman, and Thomas R. Dye, *Suburban Differences in Metropolitan Politics* (Philadelphia: University of Pennsylvania Press, 1965), p. 214; Also see John Suttoff, "Local-Cosmopolitan Orientation and Participation in School Affairs," *Administrator's Notebook*, IX (November, 1960), 1-4.

Both Marando and Brechler[59] have demonstrated that units of local government are selective in picking cooperative partners and that an important criterion for selection is that the partners be similar in social composition. However, suitability could also be interpreted as a function of capability to deliver some service; thus a school district might consider making contracts or some kind of arrangements with a local government, agency, commission or authority to carry out some function for which it has particular qualifications. An example would be a school district authorizing a metropolitan planning commission to locate school sites.[60] The extent to which school board members see other units of government or governmental agencies as suitable to perform specific school district functions, and the extent to which suitable partners among school districts are districts which are similar in composition, were also examined.

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[59] Frederick C. Brechler, Patterns of School District Interrelationships: A Study of the Kansas City Metropolitan Area (Kansas City: Center for the Study of Metropolitan Problems in Education, University of Missouri - Kansas City, 1966), p. 13.

[60] Daniel U. Levine and Jerry B. Clavner, Multi-jurisdictional Metropolitan Agencies and Education - A Study of the Involvement of Educators in the Work of Planning Commissions and Councils of Government (Kansas City: Center for the Study of Metropolitan Problems in Education, University of Missouri - Kansas City, Summer, 1967).

Finally, location in the metropolitan area[61] has shown a consistently high relationship with attitudes toward inter-governmental cooperation[62] and has been reported to partially obscure the effects of other significant variables.[63] Such a potentially-significant variable must also be taken into account in this study. However, it would be almost illusory to suggest that locally initiated arrangements for inter-district cooperation could provide some solutions for the many urban educational problems, if it were determined either that the school board members of suburban school districts tended to be negatively-oriented toward cooperation or that school boards were positively-inclined toward cooperative arrangements only with districts whose social composition was very similar to their own.

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[61] The designation central city, suburban, and urban fringe will suffice for the purposes of this study.

[62] Oliver P. Williams, *et al.* *Suburban Differences in Metropolitan Politics* . . .; Basil G. Zimmer and Amos Hawley, "Opinions on School District Reorganization in Metropolitan Areas: A Comparative Analysis of Views of Citizens and Officials in Central City and Suburban Areas," *Southwestern Social Science Quarterly*, XLVIII (December, 1967), 311-324; Brechler.

[63] Oliver P. Williams, *et al.* *Suburban Differences in Metropolitan Politics* . . .

For the purpose of facilitating statistical analysis of the relationship between certain of the previously-stated variables, the following hypotheses were constructed. Although in the actual analysis the hypotheses were stated in null form, they are presented here in the alternative form for clarity of expression.

1. School board members are significantly more favorable toward cooperation on functions with economic implications (FEI's) than on functions with social implications (FSI's).

2. The more favorable the attitudes are toward cooperation on FSI's, the more favorable the attitudes will be toward cooperation on FEI's.

3. The more tenure a school board member has, the less favorable he will be toward cooperation on FSI's.

4. The higher the socio-economic status (SES) of the school board member, the less favorable he will be toward cooperation of FSI's.

5. The less provincial a school board member is, the more favorable he will be toward cooperation on FSI's.

In addition to the correlation relationships stated in hypotheses two through five above, tests for significance of difference between medians of sub-groups in the categories, socio-economic status (SES), localism and location in metropolitan area on attitudes toward cooperation on functions with social implications (FSI's) were calculated. The alternative forms of the hypotheses on which tests for significance between medians were calculated are

6. School board members of SES III, IV, and V will be more favorable toward cooperation on FSI's than board members of SES I and II.
7. School board members who tend to be less provincial will be more favorable toward cooperation on FSI's than board members who tend to be more provincial.
8. School board members of districts classified as urban fringe will be more favorable toward cooperation on FSI's than school board members from suburban districts.

Each of the hypotheses three through eight were also tested in terms of attitudes toward cooperation on functions with economic implication (FEI's).

## Scope and Limitations of the Study

The sample of school board members included in this survey was restricted to 156 public school board members of 41 school boards in two metropolitan areas. The metropolitan areas were known to be similar in size, racial composition and stratification, and financial consideration for schools. The generalization power of the study is therefore limited by these conditions.

The two regions surveyed are Metropolitan Kansas City, Missouri and Metropolitan Cincinnati, Ohio. Kansas City was included primarily because of proximity to the research base and the interest of this investigator in the area. Cincinnati was selected, on the basis of its similarities to Kansas City, to expand the population to be sampled and provide data suitable for comparison

The mailed questionnaire was considered an appropriate instrument for data collection in this kind of study. However, questionnaires and questionnaire procedures have inherent limitations, therefore the results of this study are limited by the nature of the instrument. (Appropriateness as well as limitations of questionnaires are discussed in Chapter II.)

# CHAPTER II

# REVIEW OF RELATED LITERATURE

## Introduction

The previous chapter sought to delineate the discrepancy between proposed principles of sound and efficient organizational structures for the units of government vested with the responsibility for providing public education, and the values considered to be inherent in good government held by those invested with the responsibility of representing the local body politic's best interests and life styles.

Despite the fact that a growing body of research has supported the efficacy of cooperative arrangements among metropolitan school districts as a path to the solution of many educational problems, proposals for such arrangements usually have not gained citizen approval. It has been suggested that this record of rejection may be partially due to the considerable lack of regard proponents of reform have shown for the attitudes of local political and economic leaders toward arrangements for interlocal cooperation. Murphy, for instance, speaking in a context much broader than the scope of this study, has suggested that among the conditions most conducive to successful consolidation is that local political and economic leadership conclude reorganization is necessary and commit its reputation to that cause.[1]

With regard to school districts and school board members there appears to have been a notable lack of concern by researchers as to whether board members might be favorable to some form of inter-district cooperation. In reviewing the literature relevant to school boards and school board members, it became apparent that research on board member attitudes that may have direct relevance to the specific focus of this study was virtually non-existent. A review of the International Index to Periodicals and the Educational Index from 1946 to 1969 revealed a complete absence of studies on school board member's attitudes toward inter-school district cooperation. Inquiries to the School Research Information Service and the Educational Resources Information Center, which have on file most doctoral dissertations in education, also revealed no studies specifically in this area. A

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[1] Thomas D. Murphy, Metropolitics and the Urban County (Washington, D.C.: Washington National Press, Inc., 1970), Chapter 1.

DATRIX (Direct Access to Reference Information: Xerox) search of university microfilms, was similarly unfruitful. However, there have been a number of studies on characteristics and attitudes in a variety of other contexts and a review of the more pertinent of these is in order, even though their relevance may seem somewhat peripheral.

## Studies of School Board Members in Terms of Selected Characteristics

Studies describing the characteristics of school board members indicated that the composition of school boards has remained remarkably stable even when compared to school boards of 1926. Brown's 1952 study of the "Composition of Boards of Education; A Comparative Study," collected data by mail questionnaire from 563 school board members inclusive of all states. Among his findings were:

1. Most board members were elected to the post.
2. 69.3 percent of the sample were proprietors, managers or professionals.
3. The median time in office was 4.4 years.
4. Average age was 48.3.
5. Only 13.6 percent of membership were women.

6. 52.9 percent of the board members had children in public schools.
7. These findings were essentially similar to a previous study by George S. Counts in 1926.[2]

The National Study of School Boards Superintendents and the General Public affirmed that the composition of school boards has remained reasonably unchanged through 1969. Data from this report indicate that

1. 90 percent of board members are male.
2. Average age is 40 to 59.
3. 80 percent have lived in the community 16 years or more.
4. 72 percent have at least one year of college.
5. 36 percent earn over $20,000 per year.
6. 69 percent have school-age children.[3]

Data were gathered by questionnaire. The return provided information on 492 school board members.

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[2] Robert Hathaway Brown (Unpublished Ph. D. Dissertation, Yale University, 1952).

[3] M. Kent Jennings & Harmon Zeigler, The Governing of School Districts: Preliminary Report. (Ann Arbor, Michigan: University of Michigan, the Survey Research Center Institute for Social Research, May, 1969).

## Studies of School Board Members in Terms of Selected Attitudes and Opinions

Various studies of school board attitudes and opinions are of interest here because of the variables taken into account. The research methods emphasized or the particular findings offer useful background information. Warren Carmichael, for instance, in developing "An Instrument to Measure Attitudes and Opinions Toward Human Relations Issues,"[4] could not discriminate between two test groups and concluded that the validity of the instrument was not established. Carmichael fell prey to a pitfall that this study has taken pains to avoid. Construct validity requires evidence of substantial agreement with some external criteria. That is, if two groups are known to have certain very different attitudes about some issues or object, an instrument devised to measure attitudes about that issue or object must discriminate between the two groups in a previously-predicted direction. A key to construct validity is that there must be a good deal of certainty regarding the difference between the external criteria. This required degree of certainty was not evident in Carmichael's study; thus, his inference that the instrument was not valid is subject to question. It may well be that the groups did not have sufficiently-different attitudes about the issues in question. This study employed a scheme for validating by simulation that seems to have avoided this snag.

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[4] Warren C. Carmichael (Unpublished Ed. D. Dissertation, University of Oklahoma, 1968).

Jennings and Zeigler, by questionnaire survey of 492 school board members, 81 district superintendents and 1,557 members of the general adult public, derived information concerning the following areas:

1. Basis upon which school officials should make their decisions.
2. Degree of faith in different levels of government.
3. Role of the Federal government in society.
4. Role of the Federal government in school integration.

To gather data on the first item the researchers asked the question: "In making up his mind the board member should

1. Do what the public wants"
2. Depend on issue, situation"
3. Follow own judgment"

Of the general public only 48 percent felt the board members should follow his own judgment, but 68 percent of the board members felt he should follow his own judgment, and 73 percent of superintendents felt the same way.

Attitudes on the other three items are summarized in the following chart.[5]

| | General Public | Board Members | Superintendents |
|---|---|---|---|
| Most faith and confidence in local government | 25% | 47% | 44% |
| Most faith and confidence in national government | 43% | 19% | 19% |
| Least faith and confidence in local government | 34% | 16% | 23% |
| Least faith and confidence in national government | 24% | 49% | 46% |
| Federal government role has become too powerful | 55% | 65% | 47% |
| Federal government role in integrating school should be positive and involved | 43% | 48% | 62% |

It is obvious that the school board members surveyed tended to be more favorably oriented toward local government and very wary of the increasing power and influence of the federal government.

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[5] Jennings and Zeigler.

Another study, concerned with regionalization of the United States Office of Education, offered substantiation to some of the findings of the previous study. This study of chief state school officers, school superintendents, school board presidents and professors of educational administration, noted a general feeling of apprehension among educational leaders as to the intentions of the United States Office of Education to intrude into the area of local control.[6]

Other studies have focused on attitudes about collective negotiation and public relation policies and practices. Sinicropi, for example, used summated ratings of the responses to mailed questionnaires to reduce indicated attitudes of the three types of respondents — teachers, superintendents and school board members — to criterion scores. An important finding of his study was that school board members saw little need for legislation in the area of collective negotiations. This was in direct contrast to teachers and superintendents who thought such legislation was desirable.[7]

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[6] Darrel Wayne Dewoody, "Attitudes of Selected Educational Leaders Toward Regionalization of the United States Office of Education," (Unpublished Ph.D. Dissertation, East Texas State University, 1968).

## Studies Relating Selected Board Member Characteristics to Attitudes and Opinions

More sophisticated studies have attempted to relate certain sociological facts about school board members to certain indicated attitudes and opinions.[8]

Albert, in studying the attitudes of school board members toward criticisms of the public schools, chose to relate attitudes to the variables of age, sex, education, occupation, children, wards or grandchildren in public schools, tenure and income. He compiled an inventory of common criticisms of the schools with Likert-type response categories using a continuum from "strongly agree" to "strongly disagree." The questionnaire was mailed to 396 cities with over 30,000 population, the response represented a 27 percent return. It was not clear whether this figure represented 27 percent of the board members or 27 percent of the cities.

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[7] Anthony V. Sinicropi, "An Investigation of the Attitudes of Teachers, Board Members and Superintendents Regarding Collective Negotiations Legislation in Iowa" (Unpublished Ph. D. Dissertation, University of Iowa, 1968).

[8] "Sociological facts are attributes of individuals that spring from their membership in social groups or sets: sex, income, political and religious affiliation, socio-economic status, education, age, living expenses, occupation, race and so on." See: Fred N. Kerlinger, Foundations of Behavioral Research (Chicago: Holt, Rinehart and Winston, Inc., 1964, revised edition, 1967), p. 394.

His findings, as they relate to board member characteristics, were essentially in keeping with the findings of the many other studies of school board member characteristics. His analysis of relationships of characteristics and attitudes revealed none of the variables to be significantly related to attitudes about criticism except age and sex and the additional variable of geographic region. Board members in Mid-Atlantic states were generally more in agreement with criticisms of public schools than were board members of mid-states or the far west. Board members over 60 tended to agree more with the criticisms than did board members in age brackets of 40 to 50. And women tended to be far less in agreement with criticisms of schools than were men.[9]

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[9] Frank R. Albert, "Selected Characteristics of School Board Members and Their Attitudes Toward Criticisms of the Public Schools," Journal of Educational Research, LVI (Sept., 1962), 55-56.

In a study with similar objectives, Robinson surveyed 566 school board members of 102 Iowa school districts by questionnaire. His results, based on a 63.96 percent return found that the average age of school board members was 45 years old. They were married (99%), well educated (43.37% graduated from college), in a professional or technical occupation, in a higher income bracket (average $11,994), male (92%), and in tenure for 3.81 years (median). Analysis of relationship of variables to selected criticisms revealed several significant findings: a) board members from small districts were more likely to agree with negative criticisms in the areas of costs, teaching methods and procedures, and policy than were members from larger districts; b) board members between the ages of 40 and 49 were less critical of board policies than were other age groups; c) farm operators were in greater agreement with school policies than were members in other occupational categories; d) as educational level increased, the tendency to agree with negative criticisms of school costs decreased; e) as annual income increased, the tendency to agree with negative criticisms of school costs decreased. Years of service was not significantly related to attitudes toward criticism of the schools.[10]

Another study sought to determine the extent of school board members' satisfaction with their schools and how satisfaction was related to selected variables. An over-all index of board member satisfaction was sought as well as indices in the area of Curriculum, Teachers, Administration, Equipment and Building. The findings, based on a 25 percent return to one mailed questionnaire to all school-maintaining New York school districts, are summarized as follows:

| | Satisfied | Neutral | Dis-satisfied |
|---|---|---|---|
| Over-all | 57.00% | 40.00% | 3.00% |
| Curriculum | 41.84 | 52.37 | 5.79 |
| Teachers | 55.00 | 40.26 | 4.74 |
| Administration | 55.79 | 32.89 | 11.32 |
| Equip. and Bldg. | 78.68 | 19.74 | 1.58 |

Except for the fact that females tended to have significantly higher opinions of their schools, no other variable (children in school, occupational status, education and tenure) was significantly related to opinion score.[11]

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[10] James L. Robinson, "Attitudes of Iowa School Board Members Toward Selected Criticisms of Public School Education" (Unpublished Ph. D. Dissertation, Iowa State University of Science and Technology, 1966).

A study by Proudfoot involved the multiple comparisons of socio-economic status (SES) to degree of influence exercised by board members, and of the indicators of socio-economic status (occupation, education) to board member attitudes toward certain common problems confronting board members in Alberta. The data gained by investigator-administered questionnaire from the board members of a stratified sample of 20 school districts revealed that SES is significantly related to influence. Those higher on the SES scale tended to enjoy more influence on their boards than those lower on the SES scale. Other findings indicated that high occupational status and a high level of education were significantly related to positive attitudes about merit pay, requiring teachers to have degrees, and the Province school support fund. In addition those in higher status occupations tended to be more positive about school shop and home economic programs, while those with more advanced education tended to be more positive toward experimenting with accreditation.[12]

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[11] Edward L. Dejnozka, "School Board Members, Their Opinions, Status and Financial Willingness," Journal of Educational Sociology, XXXVI (Jan., 1963), 193-199.

A study of "Certain Characteristics and Attitudes of School Board Members in Suburbia" was carried out in St. Louis and St. Charles Counties of Missouri. Findings based on returns of mailed questionnaires to all school board members in St. Louis and St. Charles Counties, indicated that two-thirds of the board members who responded were in favor of reducing the number of school districts in the counties and that programs of federal aid to public schools were generally favorably regarded. However, a significant majority thought such programs would lessen local control. It was also determined, in general, that board members tended to be in favor of national assessment. Statistically significant relationships were revealed between level of education and attitudes toward reducing the number of school districts. The more highly-educated board members tended to be more favorable to reducing the number of school districts than those who were less well-educated.[13]

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[12] Alexander J. Proudfoot, "A Study of the SES of Influential School Board Members in Alberta as Related to Their Attitudes Toward Certain Common Problems Confronting School Boards" (Unpublished Ed. D. Dissertation, University of Oregon, 1962).

[13] Wayne DeBeer (Unpublished Ph. D. Dissertation, St. Louis University, 1966).

Another study related age, tenure, family income and level of education to board members' "reaction to issues confronting the board." It concluded that reactions were not systematically related to age or tenure, but that the highest-income board members were perceived as more effective and tended to view issues with more composure and to be less concerned than lower income board members. Large-city board members also tended to take certain issues more in stride than board members of small districts. This study was tangential to a U. S. Office of Education Project. Data were gathered from 88 school board members in 12 school districts in Wisconsin by interview and questionnaire.[14]

A case study by Kinder related background information to decisions made by the board members of one school district. He proceeded by gathering background material pertinent to the district and certain sociological facts about the board members themselves in personal interviews with each one. He then attended all board meetings for four months, recorded the proceedings, and interviewed each board member the following day regarding the member's participation. The findings generally indicated that board members either would not or could not account for their reasons for reaching a particular decision. However, the findings did reveal that school district tradition tended to have a significant influence on decisions, and that those members reporting a high income ($15, 000 or more) were more likely to be satisfied with the system and less likely to be favorable to change than board members with lower incomes.[15]

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[14] John H. Manz, "Personal Characteristics of School Board Members and Their Reactions to Issues Confronting the Board" (Unpublished Ph. D. Dissertation, University of Wisconsin, 1967).

Larson, using the Haiman Scale for Closed-open Mindedness and the Rokeach Dogmatism scale, attempted to relate values and belief systems to board member satisfaction with the school board role. Although he did not find a systematic relationship between belief systems and satisfaction with the school board role, he did find that when belief systems within a board were essentially congruent, board members tended to be more satisfied than when a board was characterized by divergent belief systems.[16]

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[15] Jack A. Kinder, "Some Background Factors Associated with the Decisions of School Board Members" (Unpublished Ph. D. Dissertation, University of Missouri, 1963).

[16] Raymond O. Larson, "School Board Members' Values, Belief Systems and Satisfaction with the School Board Role" (Unpublished Ph. D. Dissertation, University of Wisconsin, 1966).

In a study involving 61 board members of randomly-selected districts composing an area school study council, Beers found that Community-Orientation or Self-Orientation, as indicated by reported motives for seeking a school board position, were not significantly related to effectiveness (as estimated by the superintendent) or to sex, age, marital status, education, income level, or political affiliation. Although religious preference could not be associated in any systematic way with the orientation of Protestant board members, it was found that Catholic members were entirely self-oriented.[17]

## References to Ongoing Cooperative Arrangements

The school board literature to date has not provided much concrete evidence from which to make inferences about the specific area of attitudes toward inter-school district cooperation. There is, however, a certain amount of cooperation going on among school districts as well as among other governmental units, and studies of cooperative programs should permit one to make some assertions on attitudes about cooperation.

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[17] Charles Meade Beers, Jr., "An Analysis of the Community-Oriented and Self-Oriented Board Member" (Unpublished Ed. D. Dissertation, University of Pittsburgh, 1965).

Brechler, in a study of school district inter-relationships among the superintendents of the 44 member-districts of the Kansas City Metropolitan School Study Group, devoted his attention to "locating, examining and explaining the inter-district relationships that exist in a metropolitan area."[18] The analysis of his interview data found that there were, to some extent, two types of cooperative relationships operating in the Kansas City area: formal, in which participants negotiate and apportion shares of costs and responsibilities for providing particular services; and informal. Informal cooperation appeared to be the most important or at least the most frequent kind of relationship between districts, but these were, for the most part, "'talking' relationships that involved exchanging information on a whole series of topics that range from bureaucratic procedures to policy-making debates."[19]

The writer made an extensive survey of the "formal" cooperative educational programs in the metropolitan Kansas City area. Of the eight cooperative programs identified for inclusion in the study

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[18] Frederick C. Brechler, Patterns of School District Interrelationships: A Study of the Kansas City Metropolitan Area (Kansas City: Center for the Study of Metropolitan Problems in Education, University of Missouri – Kansas City, 1966), p. 13.

[19] Ibid., p. 108.

> Four of the programs can be described as contributing to the social-psychological growth and well-being of the student. The others serve such needs as (a) contributing to the professional growth of teachers, (b) helping eligible students attend college, (c) supervising extra curricular activities, and (d) providing vocational-technical training.[20]

It should be noted that the participating districts of at least two of the programs were contiguous, small elementary districts, in a middle-class suburban county, which have since become one unified district as required by Kansas law. For the most part the incentive to initiate these programs resulted from the stimulation of available federal funds. Four of the programs were funded by Title III of the Elementary and Secondary Education Act,and two other programs were at least partially funded by the Higher Education Act of 1965 and the Vocational Education Act of 1963.[21]

Apparently, even when cooperative efforts among school districts were manifested as formal educational programs, they continued to serve only relatively-isolated pockets of the metropolitan community. This substantially agrees with findings by Brechler that there was "a lack of willingness for districts to cooperate with districts that are unlike them in composition of citizens, size, location and problems," but districts did indicate a willingness to cooperate with other districts "that are like them in composition of citizens, size, location and problems."[22]

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[20] Robert P. Fain, "A Survey of Cooperative Educational Programs in the Metropolitan Kansas City Area," Kansas City: Center for the Study of Metropolitan Problems in Education, University of Missouri - Kansas City, June, 1968, p. 33, (Mimeograph).

[21] _Ibid._

It appears that cooperative programs tend to be of a nature usually considered subordinate or peripheral to traditional educational programs or outside the mainstream of academic functions. Oliver Williams offered a theoretical explanation for this situation. He proposed that citizens and officials will probably not cooperate in performing functions that may have critical social implications for a community's life-style, but may show a tendency to cooperate on functions which have primarily economic implications.[23] Marando, in his study of inter-local cooperation cooperation among municipalities and governmental agencies in the area of metropolitan Detroit, to a large extent substantiated this hypothesis.[24] Thus, local school districts, for instance, may tenaciously cling to long-established boundaries, locally-elected officials and other devices through which the illusion of local control is maintained, but they may agree to transgress these boundaries to establish programs for such functions as educational TV or special education in which cooperative arrangements evidently provide no threat to the life-style of a given community and which, because of small size, could not be economically provided by any small district acting on its own.

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[22] Brechler, pp. 73-74.

[23] Oliver P. Williams, "Life Style Values and Political Decentralization in Metropolitan Areas," Southwestern Social Science Quarterly, XLVIII (December, 1967), 299-309.

The nature of the function itself can therefore be seen as a variable to be taken into account in assessing attitudes toward inter-governmental cooperation. School districts, as governmental units performing certain functions, have not been examined in this context,and those who have investigated cooperation between other local governmental units in these terms have treated education as a simple categorical function and assigned it to that set of functions said to have social implications.[25] However, documents which elaborate on the processes implicit in operating schools, such as the School District Organization for Missouri proposal, clearly indicate that the process of educating the public involves the performance of many related, though conceptually distinct, tasks or functions by the school district and its personnel.[26]

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[24] Vincent L. Marando, "Inter-Local Cooperation in a Metropolitan Area: Detroit," Urban Affairs Quarterly, IV (December, 1968), 185-200.

[25] Oliver Williams very clearly explained this position in a personal letter during the Spring of 1969. He stated: "Functions with social implications relate to policies which control or channel social interaction. That is clear enough. The whole school operation is FSI in that sense. It is a socialization institution which is manipulated by controlling the mix of kids and teachers."

## The Questionnaire as a Research Instrument

Questionnaires were usually used as the data collection instrument in studies of school boards. The popularity of the questionnaire is partially explained by its relative economy.[27] But it also has particular applicability to situations in which one cannot readily and personally see all people from whom responses are desired, when respondents are relatively unavailable and when large-scale simultaneous administration of the instrument is necessary or desirable.[28] Koos suggested the use of the questionnaire method is most justified in the absence of other procedures to get direct judgments or evaluation from respondents.[29]

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[26] Missouri School District Reorganization Commission, (1969).

[27] Carl-Otto Jonsson, Questionnaires and Interviews (Stockholm: The Swedish Council for Personnel Administration, 1957); Carter V. Good and Douglas E. Scates, Methods of Research (New York: Appleton-Century-Crofts, Inc., 1954); Carter V. Good, Essentials of Educational Research (New York: Appleton-Century-Crofts, Inc., 1966); Raymond Franzen and Paul F. Lazarsfeld, "Mail Questionnaires as a Research Problem," The Journal of Psychology, XX (October, 1945), 293-320; A. N. Oppenheim, Questionnaire and Attitude Measurement (New York: Basic Books, Inc., 1966).

An accepted definition of a questionnaire is a form distributed through the mail or filled out by a respondent under the direction of an investigator.[30] Questionnaires are usually designed to obtain information about conditions, practices or beliefs of which the respondent is presumed to have knowledge and which is probably not available elsewhere.[31] They are used increasingly to inquire into attitudes and opinions of groups and individuals, and seem to have particular potential for exploring motivations.[32]

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[28] Maria Jahoda, Morton Deutsch, and Stuart Cook, Research Methods in Social Relations, I (New York: The Dryden Press, 1951); Good and Scates; Frazen and Lazarsfeld.

[29] Leonard V. Koos, The Questionnaire in Education (New York: The Macmillan Co., 1928).

[30] Good and Scates; Good; Koos.

[31] Good and Scates, 606.

[32] Leon Festinger and Daniel Katz (eds.), Research Methods in the Behavioral Sciences (New York: Holt, Rinehart and Winston, 1953); Paul F. Lazarsfeld, "The Art of Asking Why," National Association of Marketing Research, I (1935), 26-35; Bernard S. Phillips, Social Research: Strategy and Tactics (New York: The Macmillan Co., 1966).

The method has been frequently abused and severely criticized,[33] but seldom objectively examined.[34] Facile attempts at quick and easy research using questionnaires probably are at fault. But Phillips suggested the "weaknesses commonly laid at the door of the mail questionnaire are primarily within the control of the investigator."[35] He and others have offered numerous precautions by which to construct and administer questionnaires. In general, these precautions warn that (1) responses may be influenced by the social desirability of certain items or by items which may threaten embarrassment, humiliation, or degradation[36] (Understandably, anonymous questionnaires to special groups under the sponsorship of an esteemed organization produce better response rates.[37]); (2) respondents should be known to have the ability and willingness to respond to questions asked;[38] (3) willingness is probably a function of the education and interest of the respondent. Responding, particularly to complicated questionnaires, demands considerable literacy. People who respond are likely to be those who are interested in the project and educated well enough to express themselves in writing.[39]

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[33] Koos especially reports excessive use of questionnaires. The use frequency of questionnaires within a sample of studies in 1924-25 was 25 percent of all studies examined; see also Frazen and Lazarsfeld.

[34] Jonsson, in forward by Axel Enstrom.

[35] W. M. Phillips, Jr., "Weakness of the Mailed Questionnaire," Sociology and Social Research, XXXV (March-April, 1951), 260.

[36] Jahoda, Deutsch and Cook; Jonsson; W. M. Phillips.

[37] Jahoda, Deutsch and Cook; Oppenheim; Franzen and Lazarsfeld.

Such precautions as these point up the most troublesome aspects of questionnaires: reliability, validity and sample representativeness. Some investigators never deal directly with the problem but structure rigid procedures for questionnaire construction in order to enhance face validity, and insist on near-total return rates. Good and Scates, for example, suggested that the face validity of an instrument is enhanced by careful attention to

1. keeping items as simple as possible and directed to the purpose of the study,
2. keeping items as clear and unambiguous as possible,
3. directing items at something stable, relatively deep-seated, non-superficial,

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[38] Koos; Good and Scates; Good; B. S. Phillips.

[39] Franzen and Lazarsfeld; Jahoda, Deutsch and Cook.

4. enhancing the pull of items, i. e., making sure they will be responded to by a large proportion of respondents,
5. framing items that are as inclusive as possible,
6. noting if responses show reasonable variation, and
7. noting consistency of responses within the instrument and with previous knowledge.[40]

They also insisted on return rates of 90 to 100 percent, to be achieved by extended follow-up of the first mailing through personalized letters, official endorsements and promises of summary reports.[41]

Writing in 1966,Good acknowledged that desired return rates of 90 to 100 percent were seldom achieved, but he offered no means to estimate or compensate for the bias that might be present from incomplete sampling.[42] Other investigators have attacked the problem. The most often cited way to estimate response bias has been based on the assumption that late responders to a questionnaire are similar to non-responders.[43] Phillips contacted all the members of Fisk University classes of 1924 and 1939 for which mailing addresses were known, to collect certain personal information. Those who did not respond were contacted by members of the alumni association. Thus complete relevant information was secured of the body of non-respondents. In this instance, no evidence of significant difference between late responders and non-responders was found, nor was there any evidence of significant difference between late responders and early responders. Ford and Zeisel, in a critique of Robert Ferber's attempt to reach an estimate of response bias by the early-late comparison of the returns of only one mailing, found that follow-up mailing (and resultant greater responses) were necessary. An estimate could not be reliably calculated after one mailing.

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[40] Good and Scates; see also Frank W. Hubbard, "Questionnaires," Review of Educational Research, IX (December, 1939), 502-507.

[41] Good and Scates; Good; Oppenheim; W. M. Phillips.

[42] Good cited summary reports of return rates of questionnaires used in master's theses and doctoral dissertations at selected universities. He noted that in 170 master's theses the return rate averaged 71. 74 percent; in 204 doctoral dissertations the return rate averaged 70. 65 percent. Oppenhiem noted that returns will average from 10 percent on poorly done surveys to

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above 80 percent where follow-up procedures were well done and interest was high. Dissertations and other studies in this chapter that reported return rates were in the range of 25 percent to 64 percent.

[43] Robert N. Ford and Hanz Zeisel, "Bias in Mail Surveys Cannot be Controlled by One Mailing," Public Opinion Quarterly, XIII (Fall, 1949), 495-501; Robert Ferber, "The Problem of Bias in Mail Returns: A Solution," The Public Opinion Quarterly, XII (Winter, 1948-49), 669-676; Oppenheim; W. M. Phillips.

They concluded that it is not probable that differences between late and early respondents would emerge after one mailing, and a report of no significant difference between the respondents and non-respondents could very rpobably be erroneous. Oppenheim also reports the applicability of the early-late method but without proof.

Reliability has also been infrequently investigated, and when it has, the investigation has generally assumed an equivalency between a questionnaire and a test. Hubbard reviewed several studies which yielded test-retest reliability coefficients. Reported coefficients ranged from . 75 to . 96. Most agreement was on factual questions about self; least agreement was noted on attitudes about self. Women tended to be more stable than men.[44]

Although frequently ignored, the question of validity has been confronted on various levels. Some writers have simply held that given due regard for taboo or controversial topics which may threaten, embarrass or humiliate the respondent, there is no reason not to accept the verbal report as a valid indicator of the respondent's condition or situation.[45] Franzen and Lazarsfeld investigated the validity of a questionnaire survey of the subscribers to Time magazine by taking interview data of the 1,052 respondents (35.07 return) as the external criteria. Their results showed significant difference between data on 18 of 66 items. They concluded the mailed questionnaire was particularly appropriate for a homogeneous population.[46]

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[44] Hubbard.

[45] Jahoda, Deutsch and Cook.

Jonsson's work on validity was the most detailed and complete of any found in this review. His review of the literature did not regard Franzen's and Lazarsfeld's investigation as a study of validity but as a comparison of two methods of investigation: the questionnaire and the interview. Jonsson's investigation examined the relationship between a questionnaire, an interview and an external criterion. His subjects were 207 students at five day-continuation schools in central Sweden. Each subject completed a questionnaire and was interviewed, the methods being rotated alternately. Information was sought regarding economic, social and personality variables. External criteria data were available from applications for stipends taken earlier and verified by responsible sources. Statistically significant validity coefficients between the questionnaire and the external criteria ranged from .75 to .98 for questionnaire items which required definite information about self. A significant coefficient of .39 was reported for questionnaire items requesting personal judgments recorded along a continuum.[47]

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[46] Franzen and Lazarsfeld.

## Summary of Research Literature

Literature spanning much of this century indicated that school board members have been the epitome of all that was honored and virtuous in American society. Board members have generally been white males, 45 to 50 years old. They could be expected to be high-income businessmen or professionals, well-educated, long-time residents of their community, members of the school board about 4-1/2 years, and parents of school-age children. They also owned homes and paid property taxes.

Studies of school boards were usually of a survey nature. Data were usually gathered by questionnaire, though sometimes by personal interviews. In most cases where the purpose of the study was to make certain determinations about the composition of school boards, or to relate certain board member characteristics to certain constructs (e. g., opinions, attitudes, orientation), the sociological facts taken as variables were age, sex, tenure, occupation, education, income, and religion. Certain other variables, such as children in public school, belief systems, geographic location, district size and district traditions have also been considered. The variables most often found to have a significant relationship to the attitudes or opinions of interest were indications of socio-economic status: education, occupation and income. Tenure and children in public schools were seldom found to have a significant relationship to the construct in question.

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[47] Jonsson, Chapter XIII.

The significant findings about school board member beliefs, attitudes, orientation, values, ideologies, etc., indicated that: in contrast to popular sentiment, a large majority of board members felt they should follow their own judgment in making decisions; board members generally tended to be satisfied with the schools in their district; board members had a good deal more faith in local government than in other areas of government; board members tended to feel the federal government was exercising too much power and they were apprehensive about the possible intrusion of the Office of Education into local affairs;

board members tended to see little need for collective negotiations legislation. In at least one district, board members had a difficult time explaining why they made certain decisions, but tradition seemed to have been an important factor.

To some extent, other constructs tended to be a function of certain variables. A significant correlation existed between the tendency to be critical of schools and geographic region, sex, age, occupation and income. Women tended to be more satisfied with schools than men, although the over-all rate of dissatisfaction was very low. Members of boards which were characterized by congruent belief systems were more satisfied with their roles than boards which were characterized by divergent belief systems. To some extent, influence and effectiveness on the board was a function of socio-economic status (SES), and the tendency to take a positive stance in regard to change and controversial issues was related to SES.

Reference to ongoing cooperative programs revealed that, for the most part, cooperative arrangements were informal (usually involving exchanges of information on topics of interest). When cooperative arrangements were more formalized as projects or programs, they tended to serve small portions of available populations and generally provided services that could be considered important but of appeal only to those with special needs or interests. A tentative explanation to this apparent willingness to cooperate for other than ordinary educational programs was that programs to relieve special or peripheral educational concerns could be enjoyed primarily for the benefits they bestowed. Cooperative proposals for other areas of school district concern might be warily regarded as having critical implications for a community's life-style. For the most part, stimulation to initiate cooperative educational programs came from the promise of available federal funds.

Questionnaires seemed to be an appropriate means of securing information when one could not personally see all the people from whom responses were desired, when the respondents had knowledge not available anywhere else, and when the respondents were able and willing to respond.

It did not appear that questionnaire surveys could be easily done. Many precautions including clarity and appropriateness of the items, population characteristics, and procedures for maximizing response rate must be considered.

It should be assumed that returns would manifest a response bias but procedures are available to estimate the extent of the bias.

If all due precautions are followed and the respondent population is relatively homogeneous,there is reason to believe that the questionnaire can be a reliable and valid research tool.

# CHAPTER III

# METHODS AND PROCEDURES

## Introduction

The central purpose of this study was to investigate the attitudes of school board members in selected metropolitan areas toward inter-school district cooperation on selected school district functions, and to determine if statistically significant relationships would be found between certain variables and the attitudes expressed by the board members. Therefore it was a key component of this research to develop an instrument capable of gathering the data necessary to obtain these ends.

Questionnaires have often been used to gather data for attitude studies of school board members. Since the setting and population involved in this investigation closely approximated the conditions in which questionnaires work best (i. e. relatively homogeneous population and impracticality of personally seeing all people from whom responses were desired), a mailed questionnaire seemed to be the most appropriate method.

## Description of the Instrument

A questionnaire composed of six sections was designed.[1] Section I sought information about tenure on the board, level of education completed and occupation or profession. These last two factors are the components of Hollingshead's Two Factor Index of Social Position.[2] As Hollingshead described the index, it is an

> easily applicable procedure to estimate the position individuals occupy in the status structure of our society.
>
> . . . . . . . . . . . . . . . . . . . . . . . . .
>
> Occupation is presumed to reflect the skill and power individuals possess as they perform the many maintenance functions in the society. Education is believed to reflect not only knowledge, but also cultural tastes.[3]

Hollingshead developed categories of occupational fields and educational levels. Each category was assigned a numerical value and multiplied by a constant or weighting he had derived. The sum of the two products was used to either locate a respondent on a social class scale from I to V, or to construct a continuous metric variable ranging from 11 to 77.

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[1] See Appendix D.

[2] August B. Hollingshead, New Haven, Conn.: 1965, (Mimeograph).

[3] Ibid., p. 2.

Tenure was determined by asking the respondent to circle a number (1 through 25) which best represented the number of years he had served as a member of that district's board. Tenure was thus placed on a continuous metric scale ranging from 1 to 25.

The second section consisted of three items designed to get an approximation of the respondent's local-cosmopolitan orientation. It contained a set of three statements on each of which the respondent had the option of indicating some degree of disagreement or agreement. The items were adapted from similar statements developed by Gouldner in a study of the orientations of college faculty members,[4] and by Carlson in the process of studying "career-bound" and "place-bound" superintendents.[5]

The following is an example of the items:

C. Criticism of local school boards, on the grounds that they are not well enough informed of the progress in educational innovations throughout the nation, is probably justified.

Strongly agree ___ ___ ___ ___ ___ ___ Strongly disagree

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[4] Alvin W. Gouldner, "Cosmopolitans and Locals: Toward an Analysis of Latent Social Roles," Part I, Administrative Science Quarterly, II (December, 1957), 281-306; Part II, II (March, 1958), 444-480.

[5] Richard D. Carlson, Executive Succession and Organizational Change (Chicago: Midwest Research Center, University of Chicago, 1962).

The respondent was also asked to briefly explain (one or two lines) why he answered the way he did. This was done primarily to increase the confidence with which this investigator labeled those who were weak in their commitment to agree or disagree to a given statement. Once the score for each item was fixed a total score could be determined between 3 and 18. The scores were thus capable of being considered a continuous metric measure or grouped into two categories, locals consisting of scores three to ten and cosmopolitans of scores eleven to eighteen.

Section III consisted of an attitude inventory; its development is discussed later in this chapter. Section IV was a follow-up of III. It was intended to provide some insight into the school board member's perception of preferred cooperative partners. The first item in IV directly and simply asked that the respondent name the districts he would prefer to cooperate with in performing some school district function, if indeed he indicated any interest in cooperating on anything at all. This information was then used to determine the contiguity of the preferred district or districts to the respondents' district, and to estimate their socio-economic similarities.

The second item of Section IV sought to determine if any local governments or agencies other than school districts might be regarded as suitable partners in performing some function. In this case the respondent was asked to specify the function and agency.

Section V consisted of several attempts to get a measure of the most important sources of influence on school board members' attitudes as manifested in their statements about inter-school district cooperation. The first part of the section asked:

> How do you think each of the following persons or groups would, as a whole, react to the views you have expressed in this questionnaire?

In response to this question the respondent was asked to indicate somewhere on a continuum from "very favorable and supportive" to "very unfavorable and non-supportive" how he felt the district superintendent, his fellow board members, and his constituents would react to the views he had expressed. His response could then be valued somewhere between one and six. It was anticipated that many respondents might be hesitant initially to designate one of these important elements as more favorable and supportive than one of the others. Hence, a kind of second effort was made to get the respondent to choose. The effort was couched in the following request.

> If you classified more than one of the above as "very favorable and supportive" or "favorable and supportive" which do you think would be the most favorable toward your point of view?

The respondent was asked to respond by placing a mark in a box beside the person or group (same as above) of his choice.

It also seemed logical to propose that specific sources of influence might vary from one specific area to another specific area. For the purposes of this study, two such areas were specified: one concerned functions with social implications, including those areas in which it was assumed board members were most likely to choose to manifest the district's autonomy and control; the other concerned functions with economic implications where the focus was on the gain of some benefit or economy, and autonomy and control were not highly valued considerations. Curriculum development was chosen to represent the area of functions with primarily social implications. Purchasing equipment and supplies was chosen to represent the area of functions with primarily economic implications. The respondents were thus simply asked:

> In developing policy or making decisions for this school district in areas such as [specified area], where or from whom do you personally get needed information?

Section VI contained a set of four short situations or cases pertaining to certain school district functions selected from the attitude inventory of Section III. The following is one of the cases developed for the section:

C. 1. An area wide planning authority has taken the position that school districts, when selecting and purchasing school sites, should consult with them about how well that site, for school use, fits into the long range development plans of the area in terms of parks, sewers, streets, fire protection, industrial location, etc. What would be your reaction to the planning authority's position?

Complete agreement ___ ___ ___ ___ ___ ___ Complete rejection

These cases provided a cross check for internal consistency and a measure of validity of the attitude inventory. As can be noted, the response scheme was kept uniform throughout the questionnaire for agree-disagree type items. The respondent was asked to locate the extent of his agreement or disagreement between the poles of complete agreement and complete rejection. He was also asked to give some explanation for his position. The opportunity for open-ended responses was expected to provide important additional clues to the respondent's attitudes about school district cooperation for the performance of certain school district functions or services and factors which may influence him.

## Development of Attitude Scales

To investigate the attitudes of school board members toward inter-school district cooperation for the performance of certain school district functions, it was necessary to develop an attitude inventory. The attitude inventory is Section III of the questionnaire. In selecting items for inclusion in the attitude inventory two schemes appeared most desirable. Both strategies involved classifying items from a previously existing list of school district functions as functions with social implications (FSI) or functions with economic implications (FEI). The most direct procedure would have been to make judgments about which school district functions best matched selected municipal government functions previously classified in that fashion by Williams.[6] Williams suggested life-style policies (e. g. FSI's) would include regulatory control of housing, urban renewal, parks and police. Control of these functions has broader implications concerning funding, building codes and social interactions. Functions with economic implications or system-maintenance policies (e. g. FEI's) would include such functions and services as television and radio, transportation, hospitals, museums and others which for technological and financial reasons operate on a large scale basis.[7]

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[6] Oliver P. Williams, "Life-Style Values and Political Decentralization in Metropolitan Areas," Southwestern Social Science Quarterly, XLVIII (December, 1967), 299-309.

[7] Ibid., pp. 304-306.

School district functions which correlate best with Williams classification of FSI items are site selection, school construction, acquiring funds and teacher placement. School district functions which correlate best with Williams FEI items are data processing, educational TV, special education and consultant-type services in which expertise is the premium and external authority is limited. However, for one investigator to singularly select the school district functions which were analogous to previously-classified municipal functions appeared to lack in objectivity. In order to secure a larger selection of inventory items and achieve a measure of objectivity in the selection,another strategy was adopted.

In this strategy a comprehensive list of functions performed by school districts was prepared from a list of such functions in the proposal for School District Organization in Missouri.[8] This list was submitted to 72 disinterested judges with instructions to classify each function, by their interpretation of definitions provided, as functions with social implications or functions with economic implications. For convenience, members of a large group were selected to act as judges. The group selected was an undergraduate history class. Each of the 72 people indicated here were members of the class who volunteered to act as judges. The definitions, as derived from Williams[9] and Vincent Marando,[10] were as follows:

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[8] Missouri School District Reorganization Commission, (1969), pp. 75-76.

> Any level or unit of government performs many functions which primarily have either social implications or economic implications. Functions with social implications (FSI) are those functions through which a population unit (e. g., a community, a village, a town, a school district, etc.) demonstrates its authority to have a measure of control over its own affairs. But, particularly, such functions serve to control which social class populations can come into close contact with each other (directly or indirectly). In this sense FSI's control access to whatever a given community has to offer.
>
> Functions with economic implications (FEI), however, have a pragmatic, materialistic character and are motivated by the economic considerations of providing services. In effect, cost-benefit factors are the priority, and the control factor is of secondary importance.

Each item was then analyzed to determine the probability (number of times assigned to a category divided by number of judges) of its assignment to a given category (see Table 1).

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[9] Williams.

[10] Vincent L. Marando, "Inter-Local Cooperation in a Metropolitan Area: Detroit," Urban Affairs Quarterly, IV (December, 1968), 185-200.

TABLE 1.--Functions performed by school districts with probability (p) for assignment to category of FSI or FEI*

| | Function | p. |
|---|---|---|
| 1 | Assigning teachers to schools | .86 |
| 2 | Selecting and purchasing classroom supplies | .19 |
| 3 | Selecting and hiring superintendents | .63 |
| 4 | Providing teacher aides | .40 |
| 5 | Selecting and purchasing textbooks | .79 |
| 6 | Providing inservice education | .56 |
| 7 | Providing guidance and psychological services | .83 |
| 8 | Providing special educational programs for the deaf and blind | .79 |
| 9 | Establishing vocational-technical programs | .71 |
| 10 | Providing pupil transportation | .36 |
| 11 | Recruiting teachers | .53 |
| 12 | Selecting and hiring administrators | .60 |
| 13 | Arranging and holding elections and referendums | .62 |
| 14 | Building repair and maintenance | .11 |
| 15 | Planning and operating student extra-curricular activity programs | .79 |
| 16 | Selecting and purchasing audio-visual and other equipment | .15 |

TABLE 1. --(continued)

| | Function | p. |
|---|---|---|
| 17 | Adjusting district boundaries | .71 |
| 18 | Providing special programs for mentally retarded | .79 |
| 19 | Providing courses of study beyond state requirements | .71 |
| 20 | Providing for library facilities | .51 |
| 21 | Developing experimental programs | .61 |
| 22 | Make provisions for pre-school education or education below kindergarten | .72 |
| 23 | Establishing salary schedules | .21 |
| 24 | Providing health services | .62 |
| 25 | Providing educational radio and T. V. | .44 |
| 26 | Selecting school sites | .50 |
| 27 | Accounting and auditing | .04 |
| 28 | Curriculum development | .88 |
| 29 | Population research and evaluation | .57 |
| 30 | Providing custodial services | .21 |
| 31 | Acquiring operating funds | .26 |

TABLE 1. --(continued)

| | Function | p. |
|---|---|---|
| 32 | Establishing facilities for Junior College programs | .68 |
| 33 | Preparation of the budget | .15 |
| 34 | Determining attendance area boundaries | .72 |
| 35 | Providing food services | .32 |
| 36 | Evaluating the educational program | .76 |
| 37 | Granting tenure | .50 |
| 38 | Selecting and purchasing data processing equipment | .03 |
| 39 | Construction of schools and buildings | .24 |
| 40 | Selecting and hiring secretaries | .31 |
| 41 | Setting graduation requirements | .90 |
| 42 | Providing special educational programs for the orthopedically handicapped | .69 |
| 43 | Providing attendance service | .54 |
| 44 | Long range planning | .56 |
| 45 | School and plant planning | .39 |
| 46 | Providing educational programs for the culturally disadvantaged | .79 |
| 47 | Making ad-hoc or "crisis" decisions | .65 |
| 48 | Providing special remedial reading programs and speech correction | .76 |

TABLE 1.--(continued)

| | Function | p. |
|---|---|---|
| 49 | Building a data processing center | .11 |
| 50 | Separation or dismissal of staff | .75 |
| 51 | Establishing a perform-arts center | .67 |

High p's indicate functions more likely to be considered FSI's, low p's indicate functions more likely to be considered FEI's.

In order to construct an inventory to meet the requirement that it cover the area of content,[11] the inclusion of some items was not contingent upon their probability of assignment to given categories but upon each of the major areas of school district responsibility (also derived from the School District Organization in Missouri proposal, see Table 2) being represented.

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[11] Allen L. Edwards, Techniques of Attitude Scale Construction (New York: Appleton-Century-Crofts, 1967).

TABLE 2.--Major areas of school district responsibility and representative items

| Areas of school district responsibility | Representative items (Table 1) |
|---|---|
| 1. Compensatory education or psychological services | 7, 8, 18, 42, 46, 48 |
| 2. Curriculum and school programs | |
| A. Educational programs | 5, 9, 19, 28 |
| B. Other programs | 15, 22, 32 |
| C. Standards and | 36, 41 |
| 3. Personnel administration | 1, 3, 6, 11, 12, 37, 50 |
| 4. Planning and general policies | 13, 17, 26, 29, 44, 45, 47 |
| 5. Pupil personnel and services | 10, 24, 35, 43 |
| 6. Ancillary services | 4, 20, 25, 40 |
| 7. Building construction and use | 13, 39, 49 |
| 8. Finance | 23, 27, 31, 33 |
| 9. Purchasing equipment and supplies | 2, 16, 38 |

The items selected were used to construct three scales of Likert-type items: a set of functions with social implications (FSI's), a set of functions with economic implications (FEI's), and a set of items which were not classified as either but were necessary to cover the area of content. The scale items are arranged in Table 3.

TABLE 3.--Attitude scale items: FSI, FEI and unclassified

| FSI items | FEI items | Unclassified items |
|---|---|---|
| Coordinating the assignment of teachers to schools | Selecting and purchasing classroom supplies | Providing health services |
| Planning & operating student extra-curricular activity programs | Determining teacher salary schedules | Providing educational radio and T. V. |
| Evaluating the educational program | Acquiring operating funds | Selecting school sites |
| Providing educational programs for the culturally disadvantaged | Construction of schools and building | |
| Providing special remedial reading programs and speech correction | Establishing a data processing facility | |

All the items were then combined in one attitude inventory (Table 4) and randomly arranged to reduce possible response set on the part of the responder.[12]

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[12] *Ibid.*

TABLE 4. -- Attitude inventory

| | Very Favorable | Favorable | More Favorable than Unfavorable | Less Favorable than Unfavorable | Unfavorable | Very Unfavorable |
|---|---|---|---|---|---|---|
| A. Providing special remedial reading programs and speech correction. | | | | | | |
| B. Establishing a data processing facility. | | | | | | |
| C. Evaluating the educational program. | | | | | | |
| D. Determining teacher salary schedules. | | | | | | |
| E. Selecting school sites. | | | | | | |
| F. Providing health services. | | | | | | |
| G. Providing educational radio and TV. | | | | | | |
| H. Construction of schools and buildings. | | | | | | |
| I. Acquiring operating funds. | | | | | | |
| J. Selecting and purchasing classroom supplies. | | | | | | |
| K. Planning and operating student extra-curricular activity programs. | | | | | | |
| L. Providing educational programs for culturally disadvantaged. | | | | | | |
| M. Coordinating the assignment of teachers to schools. | | | | | | |

## Validation of Attitude Scales

A greater concern to the credibility of this study than an inventory with adequate content validity was establishing construct validity for the inventory. Construct validity implies linking the construct assumed to be the topic of study (e. g. attitudes) with some observable (e. g. cooperative behavior) in a predictable way.[13] In this case it would be necessary for a subject (e. g. school board member) who is known to be cooperative to respond to the inventory in a predictively different way than would a subject who is known to be uncooperative.

The problem confronted in this procedure is finding a sufficiently large group of school board members (to serve as test groups) who are well known to reliable judges or observers as cooperative, and a similar group who are well known as uncooperative. Such a search involves the infinite regression implied in judging judges. A solution was offered, however, which took a different tack. This tack proposed that confidence in the validity of an inventory is enhanced if it can be determined that the scale can detect induced differences.[14] The implication of this assertion, for this situation, was that the process of validation could be simulated in the following way. Ask a group of adults to respond to the attitude inventory in terms of how they felt about inter-school district cooperation. The respondents could then be labeled as cooperative, uncooperative or perhaps unclassifiable by reference to what the responses would be expected to be if the inventory had already been validated. After the respondents were classified,they could then be given appropriate instruction concerning the ideology and behavior considered characteristic of a respondent in an opposite classification and asked to respond again to the attitude inventory. If responses in the assumed role were consistently and significantly different from previous responses in the direction specified, then claims that the inventory measured what it purported to measure (i. e. , attitudes toward cooperation on school district functions) would have substantial support. A test can be accepted as a measure of a construct "when there is a strong positive fit between predictions and subsequent data."[15]

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[13] Lee J. Cronbach and Paul E. Meehl, "Construct Validity in Psychological Tests," Psychological Bulletin, LII (July, 1955), 281-302.

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[14] Ibid. ; Jonsson has reported that "subjects under instruction to fake can usually simulate their responses appropriately." Carl-Otto Jonsson, Questionnaires and Interviews (Stockholm: The Swedish Council for Personnel Administration, 1957), p. 22.

[15] Cronbach and Meehl, p. 296.

The development of appropriate instructions on the ideology and behavior of a cooperative (or uncooperative) person (e. g. school board member) was a crucial part in the construction and validation of an attitude instrument. In developing such instructions it must be remembered that two sets of attributes are in play: individual attributes and function attributes. The extent to which individual behavior is judged to be cooperative is dependent not only on certain predispositions characteristic of the individual but also on certain attributes of the function itself. As indicated by studies previously cited, these seem to be essentially whether the function is viewed as a valued area for the expression of local district autonomy and control or is viewed in terms of benefits or economies to be gained. The influence of function attributes helps to explain why a cooperative person may not be strongly in favor of "combining together for apportioning costs and responsibility" for every function which might conceivably be of mutual benefit and, vice versa, why an uncooperative person may not be strongly against all combined efforts in the performance of school district functions. However, after taking account of the influence of function attributes, the person with positive orientations toward cooperation should be expected to respond in a more positive way to proposals for combined effort on any activity than a person with negative orientations.

By way of constructing roles in which to instruct the two groups (e.g. cooperative and uncooperative), it was necessary to review the set of assumptions said to describe the phenomena of cooperation. The assumptions proposed that cooperative behavior is two dimensional, a function of the interaction of individual attributes and function attributes. The term "cooperation" means combining together for the purpose of production, purchasing, distribution or sharing in some activity (The American College Dictionary, 1955). Brechler[16] and Williams[17] propose that cooperation means apportioning costs and responsibilities. Implicit in the definition, therefore, is that one is cooperative if he is willing to relinquish a certain amount of autonomy, and apportion costs and responsibilities for performing some function. On the other hand, an uncooperative person values independence, autonomy, the image of self-reliance and perhaps isolation more than gaining some potential benefit that might derive from combining resources and sharing responsibilities.

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[16] Frederick C. Brechler, Patterns of School District Interrelationships: A Study of the Kansas City Metropolitan Area (Kansas City: Center for the Study of Metropolitan Problems in Education, University of Missouri - Kansas City, 1966).

[17] Oliver P. Williams, et al., Suburban Differences in Metropolitan Politics (Philadelphia: University of Pennsylvania Press, 1965).

The description so far, however, is unidimensional. When taking the dimension of function attributes into account, explanation becomes more complex. But a conceptual pattern emerges that essentially suggests cooperative behavior is more likely to take place in performance of some kinds of activities than in others. The significant difference regarding functional attributes is that some functions may have little value as means of exerting control or maintaining independence (e.g. functions with economic implications),while other functions are considered essential to a person's or a community's capacity to control its own affairs and retain a given life-style (e.g. functions with social implications). If this is the case,then the difference in behavior between a cooperative person and an uncooperative person is that the cooperative person will show a relatively greater tendency to combined activity of functions in which autonomy and control are not considered crucial factors, and relatively less tendency to autonomous behavior in areas in which autonomy and control are crucial factors. In other words, a cooperative individual would show a greater tendency for combined activity in any given area than the uncooperative, even while manifesting some tendency to retain his autonomy and sense of control.

The above assumptions suggested that some functions were more likely to be subject to cooperative performance than other functions, and, moreover, some people were more likely to engage in cooperative performance of activities or functions than other people. The functions with low probability for cooperation activity were those said to have "social implications." The functions with higher probability of cooperative activity were those said to have mainly "economic implications." It only remained to describe the individual dimensions so as to identify people who would have a relatively strong orientation toward cooperative behavior and people who would have a relatively strong orientation toward autonomous behavior. The following are brief sketches describing ideology and behavior of a (1) cooperative person and (2) an uncooperative person. These sketches constituted the role instructions given to the groups used in validating the attitude scale.

> (1) You like to be aware of what is going on in other districts and how other school boards solve problems they are confronted with. You are also aware that some situations confronting school boards are common to most school districts in the metropolitan area or at least the situations may have far-reaching ramifications that may affect the people of your district. Therefore, you would be willing for the good of the overall community to join forces with certain other districts to perform school district functions that could yield important benefits for your district as well as for others. Naturally, you do have a certain pride in your district and enjoy the people you associate with as well as the people the district serves. Understandably, you may be hesitant to share resources and responsibilities with "certain" districts. You may also be somewhat reluctant to relinquish authority to perform those kinds of functions which might influence or alter the norms your community wishes to perpetuate or those things which make your district stand out.
>
> (2) You have a fierce pride in yourself and a strong determination to succeed through your own efforts. The same holds for your school district. You are well aware of the tradition of local autonomy and feel a strong responsibility to retain control of important functions within the authority of the local district. There may be certain school district functions which you would consent to multi-district performance, particularly if it enables your district to do certain things more efficiently or more economically, or if it would permit the performance of certain functions which otherwise could not be performed at all. These would be only such functions that do not have significant impact on the really important decisions or policies that must be made without regard to other districts if a district is to retain its competitive edge and demonstrate its uniqueness.

The procedure for determining construct validity was implemented as previously outlined (pp. 90-91) with 23 members of a class in educational administration. The attitude inventories were administered to the class with the following instructions.

> Think of yourself as a school board member of the school district you are most familiar with. As such you have a responsibility to your community to secure the best possible educational services for the students of your district. You also know that securing that elusive goal of a "good education" requires the performance of a large number of related functions or tasks; such as hiring teachers, acquiring funds, providing special programs, transporting pupils, etc. The scale below is intended to collect some data on how you as a school board member would feel about performing some of these functions on some basis which shared the costs and responsibility with some other school districts. Be frank and honest. Don't attempt to assume some idealized stance.

The inventories were then scored. It was assumed that the respondents would fall ideologically between the polar viewpoints that have been described and those closer to the cooperative pole would score higher than those who were nearer the uncooperative pole. On the basis of scores, each person was labeled cooperative, uncooperative or unclassifiable. One week later the scales were readministered to the members of the class, only this time each person was asked to assume the ideological viewpoint opposite to that assumed to have been expressed previously. The ideological stance to take was provided as written instructions. Those who were not classified were randomly assigned to a point of view. The scales were scored and the Wilcoxon Sign test was applied to determine if responses to the scales were significantly different when a cooperative stance was taken than when a non-cooperative stance was taken. The Wilcoxon Sign test takes into account not only the difference between scores but the direction of the difference. It is therefore a powerful test which is easy to apply when n is small (with small n's, the confidence levels can be read directly from a table but with large N's a Z score must be computed).[18] The items classified as *functions with social implications* and the items classified as *functions with economic implications* were each considered to constitute attitude scales. Analysis of the recorded scores found the pre-post tests for both the scale of attitudes on FSI's and the scale for attitudes on FEI's significantly different beyond an alpha level of .01 (Table 5).

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[18] Sidney Siegel, *Nonparametric Statistics for the Behavioral Sciences* (New York: McGraw Hill Book Co., Inc., 1956).

TABLE 5.--Pre-post scores of participants in establishing validity of attitude scales

| Functions with Economic Implications | | | | | Functions with Social Implications | | | | |
|---|---|---|---|---|---|---|---|---|---|
| S | PRE | POST | Diff | Rank | S | PRE | POST | Diff | Rank |
| 1 | 27 | 27 | 0 | | 1 | 22 | 22 | 0 | |
| 2 | 23 | 32 | -9 | 14 | 2 | 24 | 32 | -8 | 9.5 |
| 3 | 29 | 23 | 6 | 8.5 | 3 | 31 | 23 | 8 | 9.5 |
| 4 | 31 | 31 | 0 | | 4 | 26 | 14 | 12 | 15.5 |
| 5 | 29 | 18 | 11 | 17 | 5 | 28 | 11 | 17 | 19 |
| 6 | 34 | 14 | 20 | 20 | 6 | 21 | 6 | 15 | 17.5 |
| 7 | 32 | 28 | 4 | 6 | 7 | 18 | 10 | 8 | 9.5 |
| 8 | 31 | 22 | 9 | 14 | 8 | 23 | 20 | 3 | 2 |
| 9 | 22 | 15 | 7 | 10 | 9 | 21 | 9 | 12 | 15.5 |
| 10 | 30 | 27 | 3 | 3.5 | 10 | 22 | 22 | 0 | |
| 11 | 33 | 36 | -3 | 3.5 | 11 | 32 | 36 | -4 | 3 |
| 12 | 35 | 16 | 19 | 18.5 | 12 | 36 | 15 | 11 | 13.5 |
| 13 | 31 | 28 | 3 | 3.5 | 13 | 24 | 13 | 11 | 13.5 |
| 14 | 36 | 36 | 0 | | 14 | 36 | 36 | 0 | |
| 15 | 32 | 23 | 9 | 14 | 15 | 28 | 18 | 10 | 12 |
| 16 | 30 | 36 | -6 | 8.5 | 16 | 29 | 36 | -7 | 6 |
| 17 | 24 | 14 | 10 | 16 | 17 | 16 | 9 | 7 | 6 |
| 18 | 30 | 22 | 8 | 11.5 | 18 | 23 | 16 | 7 | 6 |
| 19 | 35 | 33 | 2 | 1 | 19 | 35 | 30 | 5 | 4 |
| 20 | 28 | 20 | 8 | 11.5 | 20 | 26 | 18 | 8 | 9.5 |
| 21 | 25 | 6 | 19 | 18.5 | 21 | 21 | 6 | 15 | 17.5 |
| 22 | 33 | 36 | -3 | 3.5 | 22 | 35 | 36 | -1 | 1 |
| 23 | 36 | 31 | 5 | 7 | 23 | 36 | 11 | 25 | 20 |
| N = 23 | Sum of ranks of negative scores = 29.5* | | | | N = 23 | Sum of ranks of negative scores = 19.5* | | | |
| $p < .005$ one-tailed | | | | | $p < .005$ one-tailed | | | | |

The attitudes scales were thus considered valid, the criteria for validity being that they were capable of discriminating between different attitudes about inter-district cooperation in the previously predicted direction.[19]

## The Pilot Study and Preparation of the Completed Instrument

The questionnaire was subjected to a lengthy pilot study among an available population of ex-school board members. The participants in the pilot study were contacted by telephone and asked if they would agree to participate. In all cases they agreed readily. The participants were mailed the questionnaire, a tentative cover letter and directions on what to do with it. Essentially they were asked to read the cover letter and make a written response on a sheet provided for that purpose of their impressions about how clearly the cover letter presented the intent of study, who sponsored it, what the respondent was required to do, and how important his participation appeared to be to the study. Some indication was also requested of whether the letter or its topic struck anyone as offensive or, on the other hand, if the letter of its topic tended to evoke enough interest to prompt a response. After completing that exercise,the participant was asked to respond to the questionnaire as he understood it and as though he were a member of the survey population. Then he was requested to make various comments about the clarity or ambiguity of the items.

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[19] It should be noted that the FSI and FEI scales reported here had been slightly revised and the validation data reanalyzed after results had been calculated from data derived from the actual administration of the scales to school board members. Data from school board members tended to suggest that the assignment of items to the FSI scale or the FEI scale should be somewhat different than was determined from the responses of the original 72 disinterested but perhaps also unknowledgeable and unsophisticated judges. This circumstance will be discussed more fully in Chapter IV.

The participants in the pilot study were contacted 3 or 4 at a time and after each set of responses, the cover letter and questionnaire were revised, incorporating as much as possible the suggestions made by the respondents. The mailings were continued until there were no further suggestions for change from the participants or the suggestions tended to be irrelevant to the objectives of the study. At that time the questionnaire was considered to be in its final form, ready for printing and distribution.

Endorsement for the study was sought from the Missouri School Boards Association and the Ohio School Boards Association. The associations were favorable in their response to the study,and the executive secretaries of each wrote a letter of endorsement urging school board members to participate. The letters were Xeroxed,and an appropriate one was included in each packet mailed to the board members included in the survey.

A master list of school board members was assembled and each member was assigned a code number which represented the member, his district and the metropolitan area. This was done for two reasons: to account for responses by location to determine when the threshold limits for sufficient returns were approached and to make it possible to make within-group determinations on selected variables. The respondents were promised anonymity; thus the coded master list is considered confidential.

The questionnaires were printed at the University of Missouri – Kansas City print shop. Individual letters from this investigator to each school board member and school district superintendent of the districts to be contacted, mailing labels and return envelopes were prepared by the University Addressograph. Copies of the written endorsement from the executive secretary of the state School Boards Associations were made by Xerox. These items were assembled in packets and mailed to the individuals of concern. The first mailing for the Kansas

City Metropolitan Area was November, 1969. The second mailing was the first week in December. By the end of December some school districts had been identified as crucial to the study, and board members who had not previously responded from these districts were contacted by phone. Most of those contacted responded favorably, except for the central city districts. The central city board members seemed favorable to the study during the phone conversation, but few bothered to return the questionnaire even though additional ones were mailed to them the day after the phone conversation. By the middle of January, 1970, it was evident that all the questionnaires that were likely to be returned from the board members in metropolitan Kansas City had been returned.

The written endorsement from the executive secretary of the Ohio School Boards Association was received late and the first mailing to Cincinnati was delayed until January, 1970. During the first week of February, a second mailing was prepared and sent. By the end of February an adequate number of questionnaires had been returned from Cincinnati to proceed with analysis.[20]

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[20] It had been previously determined that the sample would be considered adequate when two-thirds of the board members from two-thirds of the districts contacted had responded.

## Analytical Procedures

As the questionnaires were returned,items that were recorded numerically ("circle the appropriate number") or could easily be converted to a numerical score by application of previously devised categories (i. e. central city, 1; suburban, 2; urban fringe, 3), were transferred to large facsimiles of an 80-column punch card, punched into computer tape and stored on magnetic tape for future retrieval. These data constituted all the data to be treated statistically. Other data, which were collected in the form of open-ended responses (words, sentences, paragraphs) were reduced to numerical form by content analysis and stored on the 80-column sheets.

The nature of open-ended responses necessitated procedures, usually called content analysis, for reducing the data to manageable form. Content analysis involved the construction of a posteriori categories or coding frames developed after reviewing all or a scientifically selected sample of the responses and then collapsing the responses into as few categories as possible.[21] The categories should express the most salient concepts contained in the actual responses, the perception of which should be both influenced and aided by the emergent theoretical position in the development of the study.

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[21] A. N. Oppenheim, Questionnaire Design and Attitude Measurement (New York: Basic Books, Inc., 1966).

The responses to which content analysis were applied were the responses to items seeking (1) indications of functions the respondent would consider cooperating on with some agency other than a public school district, (2) indications of agencies or other school districts the respondent would consider cooperating with, (3) indications of principal sources of influence on school board members attitudes, and (4) explanations of the scaled response on each of the four hypothetical cases which were included primarily as a check on internal consistency of the questionnaire.

The coding frames developed for analyzing situations 1, 2 and 3 consisted of exhaustive categories, i. e., they included about as many functions, agencies or sources of influence, as the case may be, as were mentioned in the responses. When this is the case, variability of rater judgment is not a crucial factor, and one rater or judge can reliably assign responses to categories. Situation four above was a different matter. The coding frames constructed for use in coding the explanations were regarded as among the most difficult types of coding frames to use. "This [kind of coding frame] requires a good deal of interpretation of the responses before they can be classified. The coders would have to think and discuss quite carefully; inevitably coding of this kind of material is slow."[22] Construction of categories to code this kind of material was also slow. Four coding frames were needed, one for the explanations for each of four cases. In developing the coding frames, the first step was to list all of the explanations given for each case on all the questionnaires returned. (The frames were constructed from responses returned in metropolitan Kansas City; however, no additional categories were required for analyzing data from metropolitan Cincinnati.) After responses were reduced to tentative categories, five judges were asked to classify a sample of the responses using the coding frames. The results of this step were analyzed to determine which categories and frames needed revision. Revisions were made, and the coding frames were again applied. These steps were continued until substantial agreement appeared among the raters. At that point two judges assumed the task of coding the responses from all the questionnaires. A reliability score was then computed for the application of each frame using the formula

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[22] Ibid., p. 239.

$$R = \frac{2(C_{1,2})}{C_1 + C_2}$$

in which the number of category assignments on which all coders agree is divided by the sum of all category assignments by all coders.[23] A score of .70 was considered threshold for acceptability.[24] The reliability scores were recorded in Table 6.

TABLE 6.--Inter-rater reliability of content analysis categories

| Case | | Metropolitan Kansas City | Metropolitan Cincinnati |
|---|---|---|---|
| Part VI | A | 89.83 | 77.50 |
| | B | 92.59 | 91.43 |
| | C | 87.89 | 81.67 |
| | D | 78.57 | 88.57 |

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[23] Richard C. North, et al., A Handbook with Applications for the Study of International Crisis (Northwestern University Press, 1963), p. 49.

[24] Ibid., p. 63.

To code those responses for which there were disagreement between the coders, this investigator and the coders carefully discussed what the salient points of the response might be and how it should be coded. When we achieved agreement, we coded the response in terms of the agreed-upon category. When we could not agree, we judged the response vague and unclassifiable and coded it so. The content analysis of the open-ended response enabled the data to be reduced to numerical form which could be easily recorded and analyzed. The analysis of the data to which content analysis was applied for coding was limited to rank ordering and frequency distributions.

## Statistical Procedures

In order to test the statistical significance of the relationships between the variables of tenure, socio-economic status, localism, functions with social implications and functions with economic implications, programs which yield parametric approximations of the nonparametric statistics were used. The Mann-Whitney U test, the Wilcoxon Sign test, and the Spearman Rank-Order test were written by Mr. Jacob Ruf of the Metropolitan Planning Commission

(Metropolitan Kansas City) and Information Systems Development.[25] The programs were written for a Control Data Corporation 6400 computer and implemented through the services of the United Computer System, Kansas City, Missouri. The Mann-Whitney U test is a test of significance between independent groups, the Wilcoxon Sign test is a test of significance between dependent groups, and the Spearman Rank-Order test is a test of correlation between variables. Nonparametric statistics were decided upon primarily because the ordinal nature of the attitude scales and other scales in the questionnaire did not meet the assumption of interval scales required for parametric statistics such as the "t" test.[26]

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[25] The programs are filed in Appendix E.

[26] Siegel.

# CHAPTER IV

# ANALYSIS OF THE DATA

## Introduction

The rationale and procedures developed in the previous chapters provided the basis for the results presented in this chapter. The results and elaboration on how they were derived were presented in the following format: (a) a numerical description of the sample and indication of how well the sample represented the larger population of school board members; (b) a statistical description of the attitudes expressed by the sample of board members on each of the 13 items used to construct the attitude inventory; (c) analysis of the hypotheses developed for statistical testing in Chapter II, including additional comments on the selection of items to constitute the two scales included in the attitude inventory; (d) findings of tests of the internal consistency of the questionnaire; (e) a discussion of the reasons and explanations given by school board members in support of their opinions on each of four hypothetical cases emphasizing cooperation in performing a specific function; (f) the findings of indicated preferred partners in cooperative endeavors; (g) the findings regarding functions board members might consider cooperating on with agencies other than school districts, and the agencies with which they may consider cooperating; (h) findings regarding persons or groups that might be considered influences on school board member attitudes.

### (a) Description of the Sample

The school districts identified as target districts in Metropolitan Kansas City were taken from the membership lists of districts whose superintendents belonged to the Metropolitan School Study Group and other districts included in School Districts - Kansas City Metropolitan Area: A Statistical Sampler.[1] Target districts were selected to include both central city school districts, all immediately surrounding suburban districts, and a sample of outlying districts, labeled urban fringe in this study, which were identified by Brechler[2] and Sigler[3] as tied to the urban environment but without sufficient social homogeneity or social and economic interaction with the urban center to be called suburban. A large number of these latter districts were contacted with the hope of securing usable responses from two districts in each county. In numerical terms 28 districts were targeted for contact. Of these 28, 24 yielded sufficient response to be included in the study. The overall return rate of these 24 is summarized in Table 7.

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[1] An annual report of the Center for the Study of Metropolitan Problems in Education, University of Missouri - Kansas City, Kansas City, Missouri.

TABLE 7.--Rate of questionnaire returns in metropolitan Kansas City

| | Members contacted | Returned questionnaire | Percent return |
|---|---|---|---|
| Central City | 12 | 5 | 41.65 |
| Suburban | 68 | 44 | 64.70 |
| Urban Fringe | 70 | 50 | 71.42 |
| N | 150 | 99 | 66.00 |

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[2] Frederick C. Brechler, Patterns of School District Interrelationships: A Study of the Kansas City Metropolitan Area (Kansas City: Center for the Study of Metropolitan Problems in Education, University of Missouri - Kansas City, 1966).

[3] Jack E. Sigler, The Population of the Kansas City Metropolitan Area, 1960 (Kansas City: Community Studies, Inc., 1962).

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The average number of members contacted per board was 6.25, the average number of returns per district was 4.12, and the range of returns was from three to six.

Because of the unknown quality of metropolitan Cincinnati, selection of target districts was left to the Executive Director of the Ohio School Boards Association. He was requested to provide addresses of all school board members of school districts within the area of metropolitan Cincinnati, Ohio. Subsequently, addresses were forwarded for school board members of 23 public school districts in the Cincinnati, Ohio, area. These 23 districts were later assigned to the categories: central city, suburban, and urban fringe through the aid of persons knowledgeable about the public school systems of the area.[4] Of the 23 districts contacted, 17 yielded sufficient responses for use in the study. The overall return rate for these 17 districts is summarized in Table 8.

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[4] Dr. Clifford Ramig and Dr. Zude of the University of Cincinnati, Cincinnati, Ohio. The information provided by these gentlemen also revealed that school districts recommended for inclusion in the study by the Executive Director of the Ohio School Boards Association did not include a large portion of the metropolitan area located in Kentucky. They did confirm, however, that most of the suburban districts as well as the central city were included.

TABLE 8.--Rate of questionnaire returns in metropolitan Cincinnati

| | Members contacted | Returned questionnaires | Percent return |
|---|---|---|---|
| Central City | 7 | 5 | 71.42 |
| Suburban | 61 | 37 | 60.65 |
| Urban Fringe | 20 | 14 | 70.00 |
| N | 88 | 56 | 63.64 |

The average number of members contacted per board was 5.18, the average number of returns per board was 3.20, and the range of responses was three to five.

The overall participation rate of school board members is shown in Table 9.

TABLE 9.--Rate of questionnaire return for combined metropolitan areas

| | Members contacted | Returned questionnaires | Percent return |
|---|---|---|---|
| Central City | 19 | 10 | 52.63 |
| Suburban | 129 | 81 | 62.79 |
| Urban Fringe | 90 | 64 | 71.11 |
| N | 238 | 155 | 65.13 |

Indicators of the representativeness of the sample

It was not the intention of this study to replicate previous demographic studies of school board member characteristics. However, a comparison on the variables tenure, education and occupation of the board members represented in this survey with population samples reported in other studies, showed marked similarities. Similarities such as these suggested that the sample included in this study was representative of the larger population of school board members. The results of this study on these variables and the results of some other studies were presented in Table 10.

TABLE 10.--Comparisons of findings on selected variables of this study with other studies

| | This study | Brown | Jennings & Zeigler |
|---|---|---|---|
| Tenure (median) | 5.4 | 4.4 | - |
| Education (Percent 1 year college or more) | 83.22 | - | 72% |
| Occupation (Percent who were proprietors, managers or professionals) | 61.29 | 69.3% | - |

Although the figures noted in this table were not identical (which could hardly be expected), they were of the same magnitude and tended to corroborate the high levels of achievement usually reported of school board members.

Another indication of the extent to which the sample of school board members represented in this study were representative of the population of school board members was derived by comparing late returns with early returns on certain variables. Consequently, careful records were kept of the date of incoming returns so that very late returns could be separated and compared with the rest of the returns. The assumption was that if non-respondents were distinctly different from respondents, the very late returns would be distinctly different from the early returns.[5]

When the sample of late returnees and non-late returnees were identified, null hypotheses were stated between late and non-late returns regarding the following variables: tenure, socio-economic status (SES), localism, attitudes on functions with economic implications (FEI's) and attitudes on functions with social implications (FSI's). The Mann-Whitney U test was used as the test of significance. Results are recorded in Table 11.

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[5] A. N. Oppenheim, Questionnaire and Attitude Measurement (New York: Basic Books, Inc., 1966), pp. 34-35; W. M. Phillips, "Weakness of the Mailed Questionnaire," Sociology and Social Research, XXXV (March-April, 1951), 260-267; Robert Ford and Hans Zeisel, "Bias in Mail Questionnaires Cannot be Controlled by One Mailing," Public Opinion Quarterly, XIII (Fall, 1949), 495-501.

TABLE 11. --Mann-Whitney U test of the null hypotheses between non-late and late returnees on selected variables

| | Kansas City | Cincinnati |
|---|---|---|
| | Non-late = 83<br>Late = 16 | Non-late = 42<br>Late = 14 |
| Tenure | $Z = -.4217$ | $Z = -.7624$ |
| SES | $Z = -.0431$ | $Z = -.1336$ |
| Localism | $Z = -1.5593$ | $Z = -.7429$ |
| FEI score | $Z = -.5855$ | $Z = -.6182$ |
| FSI score | $Z = -.3810$ | $Z = -.2181$ |

Minimum Z for significance at a .95 confidence level is ± 1.65.

The statistical evidence was insufficient to reject the null hypothesis. Therefore, if late respondents can indeed be considered representative of the kinds of beliefs, attitudes, orientations, etc., of the population of non-respondents, absence of evidence to the contrary suggested that the sample of board members herein represented was an adequate representation of the population of school board members in metropolitan Kansas City and metropolitan Cincinnati.

### (b) Statistical Summary of Board Member Attitudes Toward Cooperation on Each Item of Attitude Inventory

Each board member was given the following instructions by which to respond to the attitude inventory:

> For each of the selected school district functions below, please indicate — by marking the appropriate box your response to the following statement:
>
> 'Assuming there were no legal restraints, my reaction to a proposal for my school district to share the costs and responsibility with one or more school districts in the area for performing each of the following school district functions would be . . . .'

The boxes referred to established a continuum from "Very favorable" to "Very unfavorable." The former was given a value of six and the latter a value of one so that attitudes more favorable to cooperation were expressed as higher scores and attitudes less favorable to cooperation were expressed as lower scores. The attitudes expressed by this sample of school board members on each inventory item are summarized as means and standard deviation in Table 12.

TABLE 12. --Means, standard deviations and ranks of each item of attitude inventory for each metropolitan area

| | Kansas City | | | Cincinnati | | |
|---|---|---|---|---|---|---|
| | Mean | SD | Rank | Mean | SD | Rank |
| A. Providing special remedial reading programs and speech correction | 4.5960 | 1.3918 | 2 | 5.0357 | 1.4266 | 2 |
| B. Establishing a data processing facility | 4.5758 | 1.3255 | 3 | 5.3929 | 1.3028 | 1 |
| C. Evaluating the educational program | 4.3434 | 1.4857 | 5 | 4.3393 | 1.5288 | 7 |
| D. Determining teacher salary schedules | 3.5960 | 1.8622 | 7 | 3.7679 | 1.8190 | 8 |
| E. Selecting school sites | 2.6869 | 1.5229 | 11 | 2.5714 | 1.5938 | 12 |
| F. Providing health services | 3.9697 | 1.5482 | 6 | 4.4821 | 1.5135 | 6 |
| G. Providing educational radio and TV | 4.7071 | 1.3869 | 1 | 4.9643 | 1.5605 | 3 |
| H. Construction of schools and buildings | 2.6263 | 1.5687 | 13 | 2.8750 | 1.6300 | 11 |
| I. Acquiring operating funds | 3.3232 | 1.8943 | 10 | 3.2321 | 1.7476 | 10 |
| J. Selecting and purchasing classroom supplies | 3.5455 | 1.6615 | 8 | 4.8929 | 1.2888 | 4 |
| K. Planning and operating student extra-curricular activity programs | 3.5253 | 1.6121 | 9 | 3.4286 | 1.6934 | 9 |
| L. Providing educational programs for culturally disadvantaged | 4.4141 | 1.6226 | 4 | 4.6071 | 1.3708 | 5 |
| M. Coordinating the assignment of teachers to schools | 2.6263 | 1.5091 | 12 | 2.4821 | 1.6513 | 13 |

*Means and standard deviations were calculated as part of a utility program written to accommodate these data and are presented here because of their familiarity and easy use in interpretation. However, Mean and Standard Deviation are not the statistics used in this study for hypotheses testing.

### (c) Hypotheses Regarding Attitude of School Board Members Toward Inter-School District Cooperation on Selected Functions

The original procedure employed to assign supportive functions to categories of functions with economic implications (FEI) or functions with social implications (FSI) was to ask a large number of volunteer judges to make the assignments using criteria derived from the work of Oliver Williams[6] and Vincent Marando.[7] The procedure and criteria were described in Chapter III. It became apparent, however, that the sets of items labeled FEI and FSI by this group of judges were somewhat different from sets of items that would be assembled by applying Williams' and Marando's criteria directly. Perhaps the lack of sophistication and first hand knowledge of the operations of school districts on the part of the judges resulted in a misunderstanding of the classifying criteria. The judges tended to focus on a superficial interpretation of the FEI criteria,thereby forcing the classification of most items involving money and cost factors into the FEI category. The judges virtually ignored the factors of control and authority often implicit in economic considerations. These latter factors apparently caused a function such as "acquiring operating funds" to be classified as a FEI rather than a FSI.

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[6] Oliver P. Williams, "Life-Style Values and Political Decentralization in Metropolitan Areas," Southwestern Social Science Quarterly, XLVIII (December, 1967), 299-309.

[7] Vincent L. Marando, "Inter-Local Cooperation in a Metropolitan Area: Detroit," Urban Affairs Quarterly, IV (December, 1968), 185-200.

Thus the results of classification by judges was not consistent with other work having direct implications for structuring relevant categories. These studies emphasized considerations such as economy, program benefits and efficiency on the one hand, and considerationssuch as authority and control over valued elements of community life style on the other. The relevant literature strongly established the prevailing attitude, or desire if you will, of the local citizenry to maintain authority in areas which directly affect their capacity to exercise control of what goes on in their schools. Responses made by school board members tended to corroborate this interpretation of the literature. The board members tended to respond more favorably to items which offered program bonuses (i.e., programs or services that may be desirable but unattainable or exorbitantly expensive if attempted unilaterally), or implied no direct infringement of local authorities to exercise control in areas of fundamental concern to them.

Items such as "Providing special remedial reading programs and speech correction" and "Providing educational radio and TV" were responded to with relative favor. However, the two most highly visible components of the educational institution and therefore most indicative of a district's ability to promote and provide education are "Schools and buildings" and "Teachers." The two items concerning these objects were the least often regarded as potential cooperative functions. "Constructing schools and buildings" by criteria from Williams and Marando should be regarded as a function with unfavorable potential for cooperative performance. Responses from Kansas City board members tended to agree. A special program (e. g. remedial reading ) by the same criteria should be regarded as a function with favorable potential for cooperative activity. Again responses from board members agreed. In both cases, however, the naive judges classified these functions in just the opposite categories. For these reasons (e. g. apparent misunderstanding of criteria and inconsistencies with the literature), the decision was made to discount the judges' classification and apply Williams' classification scheme[8] directly as the basis for categorizing inventory items as functions with social implications (FSI) or functions with economic implications (FEI). On this basis the FEI scale was made up of items A, B, C, G, J, L, and FSI scale was composed of items D, E, H, I, K, M (see Table 12). Item F, "Providing Health Services," was originally labeled a low discrimination item, one for which little tendency was indicated to classify one way or the other; it was added to the inventory to help damper response set. It was decided to retain that interpretation of Item F; therefore, it did not figure into any future analysis of the attitude scales.

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[8] Williams, pp. 304-307.

In general, the main consideration in revising the attitude scales was whether or not a given function seemed to have basic implications for a community or school district's ability to maintain and conserve valued elements of community life-style. Functions which are manifested as visible indicators of that life-style, are fundamental to the operation of a school system, and/or regulate social interaction have such implications and were labeled functions with social implications (FSI). Other functions, often considered special services, but frequently of significant educational value, are generally peripheral to the fundamental operations of a school system. They depend largely upon the availability of technological expertise, appropriate scale or size and money for their performance. These functions were labeled functions with economic implications (FEI).

The hypotheses identified in Chapter II in their alternative form are restated here as null hypotheses.

1. There is no significant difference between school board member attitudes toward cooperation on FEI's and FSI's.
2. There is no significant relationship between board member attitudes toward cooperation on FEI's and FSI's.
3. There is no significant relationship between tenure and board member attitudes toward cooperation on FEI's and FSI's.
4. There is no significant relationship between the SES of board members and their attitude toward cooperation on FEI's, or FSI's.
5. There is no significant relationship between the local cosmopolitan orientation of board members and attitudes toward cooperation on FEI's, or FSI's.
6. There is no significant difference between the attitudes toward cooperation on FEI's (and FSI's) of school board members who tend to be less provincial and those who tend to be more provincial.
7. There is no significant difference between the attitudes toward cooperation on FEI's (and FSI's) of board members of SES III, IV and V and board members of SES I and II.
8. There is no significant difference between the attitudes toward cooperation on FEI's (and FSI's) of board members of school districts classified as urban fringe and board members of school districts classified as suburban.

Attitudes toward cooperation on the selected functions included in the attitude inventory were represented by scores derived by summing the values of the response given to each item of the scale of functions with economic implications (FEI) and to each item of the scale of functions with social implications (FSI) which resulted in a single FEI score and a single FSI score for each board member in the sample. Socio-economic status (SES) was indicated by a score representing combined weighted indicators of the educational level and occupational field of the respondent as explained in Chapter III. Tenure was indicated by a number designated by the board member as best representing his years of service on the board. A measure of the Local-Cosmopolitan orientation of the respondent was derived by summing the value of the response given to each item of the local-cosmopolitan scale. This procedure yielded scores ranging from 3 to 18. Scores in range 3 to 10 were considered evidence of a local orientation, scores in the range 11 to 18 were considered evidence of a cosmopolitan orientation.

The test of significance applied to hypothesis one was the Wilcoxon Sign test. To test hypotheses two, three four and five, the Spearman Rank-Order test was applied. The Mann-Whitney U test was applied to hypotheses six, seven, and eight.

The results of statistical analysis are presented in Table 13.

TABLE 13.--Summary of results of statistical treatment of hypotheses

| Hypotheses | Comparisons | Metropolitan Kansas City N | Metropolitan Kansas City Result | Metropolitan Cincinnati N | Metropolitan Cincinnati Result |
|---|---|---|---|---|---|
| | | | Wilcoxon Sign Test | | |
| 1 | FEI & FSI | 99 | Z = -8.1597** | 56 | Z = -6.1115** |
| | | | Spearman Rank-Order Correlation | | |
| 2 | FEI & FSI | 99 | t = 7.8328** | 56 | t = 7.7755** |
| 3 | Tenure & FEI | " | t = -.8476 | " | t = .0589 |
| | Tenure & FSI | " | t = -.7197 | " | t = -.0494 |
| 4 | SES & FEI | " | t = -.9296 | " | t = -.1380 |
| | SES & FSI | " | t = -.8293 | " | t = -.0446 |
| 5 | Localism & FEI | " | t = 3.4591** | " | t = .0741 |
| | Localism & FSI | " | t = 4.1692** | " | t = .0544 |
| | | | Mann-Whitney U Test | | |
| 6 | FEI-locals & | 31 | | 22 | |
| | FEI-cosmopolitans | 68 | Z = -2.5580** | 34 | Z = -.4723 |
| | FSI-locals & | 31 | | 22 | |
| | FSI-cosmopolitans | 68 | Z = -4.1950** | 34 | Z = -.7482 |
| 7 | FEI-SES I & II & | 59 | | 36 | |
| | FEI-SES III-V | 40 | Z = -.8392 | 20 | Z = -.8853 |
| | FSI-SES I & II & | 59 | | 36 | |
| | FSI-SES III-V | 40 | Z = .2156 | 20 | Z = -.1628 |
| 8 | FEI-suburban & | 48 | | 37 | |
| | FEI-urban fringe | 46 | Z = .2156 | 14 | Z = -.0211 |
| | FSI-suburban & | 48 | | 37 | |
| | FSI-urban fringe | 46 | Z = 1.0061 | 14 | Z = 1.0553 |

**p < .01

The results of statistical testing of hypotheses 1 and 2 with regards to both Kansas City and Cincinnati school board members were of sufficient magnitude to reject the null statements. The results indicated that school board members in the samples representing the metropolitan Kansas City and metropolitan Cincinnati populations of school board members were measurably more favorable toward cooperation on functions with economic implications (FEI) than they were on functions with social implications (FSI). In addition, a significant positive relationship existed between scores on the FEI scale and scores on the FSI scale. This indicated that as attitudes became more favorable toward cooperation on FEI's, they tended to also become more favorable on FSI's. For the findings relative to metropolitan Kansas City, a significant difference in attitudes toward cooperation as indicated by both the FEI scale and the FSI scale was found between board members whose scores on the local-cosmopolitan scale were relatively low (local) and those whose scores were relatively high (cosmopolitan). Furthermore, scores on the local-cosmopolitan scale and scores on both the FEI scale and the FSI scale for the Kansas City sample of school board members were found to be significantly correlated, indicating that as one's orientation became more cosmopolitan, his attitudes towards cooperation with other school districts became more favorable.

A measurable relationship was found to exist between an individual attribute (local-cosmopolitan orientation), a function attribute [e.g. functions with economic implications (FEI), or functions with social implications (FSI)], and attitudes toward inter-school district cooperation. A more intensive analysis of the data examined the relative intensity of the relationship of each variable with attitudes toward inter-school district cooperation, and the manner in which the relationship of each variable with attitudes was expressed. This examination analyzed the relative impact on cooperative behavior that might be attributed to the social implications of those functions designated FSI when different combinations of attitudes on functions with economic implications and local-cosmopolitan orientation were known. The following null hypotheses were stated for statistical analysis by the Mann-Whitney U test:

1. There is no significant difference on FSI scores between cosmopolitans who score high on the FEI scale and locals who score high on the FEI scale.
2. There is no significant difference on FSI scores between cosmopolitans who score low on the FEI scale and locals who score low on the FEI scale.

3. There is no significant difference on FSI scores between cosmopolitans who score high on the FEI scale and cosmopolitans who score low on the FEI scale.

4. There is no significant difference on FSI scores between locals who score high on the FEI scale and locals who score low on the FEI scale.

High FEI scores were those above the median, low FEI scores were those below the median. Locals were those in the fourth quartile of the local-cosmopolitan scale,and cosmopolitans were those in the first quartile of the local-cosmopolitan scale. The results are summarized in Table 14.

TABLE 14. --Results of statistical analysis of difference on FSI scores between groups with different combinations of attitude toward cooperation on FEI's and local-cosmopolitan orientations

| Hypotheses | | Z |
|---|---|---|
| 1 | high FEI, Cosmo (N=18); high FEI, local (N=10) | 2.8769* |
| 2 | low FEI, Cosmo (N= 9); low FEI, local (N=18) | (not tested)** |
| 3 | high FEI, Cosmo (N=16); low FEI, Cosmo (N= 8) | 1.8371* |
| 4 | high FEI, local (N= 9); low FEI, local (N=16) | 1.0191 |

* $p < .05$

**Since there was a rather large spread of scores within the upper 50% of scores and the lower 50% of scores on the FEI scale, a test for significance on FEI scores between the groups in hypotheses 1 and 2 was necessary to show the possible effect of that variable as a confounding factor. A Mann-Whitney U test for significant differences on FEI scores for groups in hypothesis one was not significant (Z=.0479). The same test for groups in hypothesis 2 was significant;therefore,no further examination of hypothesis 2 was done.

The tabular summary indicated that: ($H_1$) cosmopolitans were more favorable toward functions with social implications (FSI) than locals even when attitudes toward functions with economic implications (FEI) were similar; ($H_3$) cosmopolitans who were more favorable toward cooperation on FEI's were also more favorable toward FSI's than were cosmopolitans who were less favorable toward FEI's; and ($H_4$) locals who were more favorable toward FEI's were not significantly different in their attitudes toward cooperation on FSI's than were locals who were less favorable toward FEI's.

Thus, it appeared that even when attitudes toward FEI's were controlled, cosmopolitans were more favorable toward cooperation on FSI's than locals. Stated differently, locals tended to be less favorable toward cooperation on FSI's than cosmopolitans even when their feelings about cooperation on FEI's were about the same. It was noted ($H_4$) that locals who were favorable toward cooperation on FEI's were no more favorable toward cooperation on FSI's than locals who were unfavorable toward cooperation on FEI's. On the other hand, the more favorable the cosmopolitans were toward cooperation on FEI's, the more favorable they tended to be toward cooperation on FSI's.

Apparently the social implications of certain functions emerged as a powerful consideration relative to attitudes toward inter-school district cooperation among locals (i. e. individuals who tend to be preoccupied with the immediate community). However, social implications did not emerge as an overriding consideration relative to attitudes toward inter-school district cooperation when cosmopolitans were considered. In short, locals appeared to be relatively unfavorable toward cooperation on functions with social implications (FSI) regardless of how they consider cooperation on functions with economic implications (FEI), but the attitudes of cosmopolitans were not so limited in scope.

This finding is particularly important because it could not be deduced from the assumptions which were basic to this research. It was predictable that school board members would be more favorable to inter-school district cooperation on FEI's than on FSI's. It was also predictable that board members who tended to be preoccupied with the immediate community (locals) would be less cooperative toward inter-school district cooperation than cosmopolitans would be. However, that the social implications of certain functions would emerge as such a powerful consideration relative to attitudes toward inter-school district cooperation among locals could not have been foreseen.

Evidence was not sufficient to reject null hypotheses 3, 4, 7, and 8 for either metropolitan area. In addition, statistical results of hypotheses 5 and 6 for the metropolitan area of Cincinnati were inconclusive (see Table 13).

### (d) Findings of Tests of Internal Consistency of the Questionnaires

In order to secure additional evidence of the validity of the attitude scales and provide a measure of the internal consistency of the questionnaire, four hypothetical situations emphasizing cooperative arrangements for performing four of the functions included in the attitude inventory were developed. The relationship between responses to each function and its analogous case was tested by the Spearman Rank-Order formula for correlation. The items from the attitude inventory for which hypothetical illustrations were prepared were:

E. Selecting school sites.
I. Acquiring operating funds.
J. Selecting and purchasing classroom supplies.
M. Coordinating the assignment of teachers to schools.

The cases prepared to illustrate a cooperative approach to each of these functions are listed below with reference to the function it illustrates.

### Case A (funds) - Function I

Difficulty in acquiring adequate operating funds from a single district tax base has prompted a citizens group to ask your board and other neighboring school boards to consider working together in some way, for the purpose of levying a school tax on a much broader tax base. The funds thus acquired would be divided among the participating districts in an equitable fashion. What would be your response to such a proposal?

Complete agreement ___ ___ ___ ___ ___ ___ Complete rejection

### Case B (purchasing) - Function J

At a convention of state school board associations, a plan for area-wide purchasing of school equipment and supplies was brought up for discussion. The discussion tended to revolve about the issues of economy, which would be available through volume purchasing and centralized storage; the unique needs of specific school districts; and the possibility of bureaucratic entanglements. What would be your reaction to such a plan?

Complete agreement ___ ___ ___ ___ ___ ___ Complete rejection

### Case C (sites) - Function E

An area-wide planning authority has taken the position that school districts, when selecting and purchasing school sites, should consult with them about how well that site, for school use, fits into the long-range development plans of the area in terms of parks, sewers, streets, fire protection, industrial location, etc. What would be your reaction to the planning authority's position?

Complete agreement ___ ___ ___ ___ ___ ___ Complete rejection

Case D (teachers) - Function M

A respected civic organization has presented a proposal to the school board, of which you are a member, to implement a reciprocal teacher placement plan with several other districts located in your area. This plan, in effect pools the teacher talent of the participating districts and establishes a multi-district agency to coordinate the assignment of those teachers, who may volunteer to do so, to the situation in any school district which might best use his or her talents and qualification. What would be your position on such a proposal?

Complete agreement ___ ___ ___ ___ ___ ___ Complete rejection

Instructions, for responding to each of these cases, given to the board members were as follows:

> Please read each of the following cases carefully and indicate the extent of your agreement or disagreement with the proposals presented in each case by placing an "X" somewhere between the terms "complete agreement" and "complete rejection" depending on how strongly you feel about the situation presented.

The response given by a board member was valued from 1 (complete rejection) to 6 (complete agreement). Scores on a particular case were then compared to scores derived from responses made on the function analogous to that case. The statistical finding of correlation between the variables are recorded in Table 15.

TABLE 15. --Spearman rank-order correlation between selected functions and related cases

| | Metropolitan Kansas City (N=99) | | Metropolitan Cincinnati (N=56) | |
|---|---|---|---|---|
| | rho | t | rho | t |
| Case A and Function I | .4501 | 4.9643* | .4826 | 4.0496* |
| Case B and Function J | .5067 | 5.7883* | .6599 | 6.4533* |
| Case C and Function E | .1951 | 1.9594 | .3747 | 2.9700 |
| Case D and Function M | .5113 | 5.8589* | .5677 | 5.0673* |

*$p < .01$

Except for case C (sites) and function E, the significant correlations between cases and their related functions indicated that respondents to the questionnaire were usually consistent in responding to items and issues presented there. The exception noted between case C and function E for the respondents from metropolitan Kansas City and the relatively low correlation derived between the same variables in metropolitan Cincinnati, especially when contrasted to the magnitude of significance between the other variables, suggested the intervention of a confounding factor. This factor becomes apparent in studying the findings regarding agencies other than school districts school board members might consider cooperating with. At this point it should be recalled that instructions for responding to the attitude scales emphasized co-operation between school districts. The case corresponding to function E (selecting school sites) was a situation emphasizing involvement with a regional planning authority. A possible explanation for the low level of correlation seen in Table 15 was that school board members may see little advantage to cooperating with other school districts, which are also of limited expertise and influence, for functions involving planning and development. But they tended to react more favorably to suggestions for cooperative arrangements with an agency or authority which has little vested interest in education and whose specific function and recognized expertise is planning and development.

### (e) Reasons and Explanations Given by School Board Members in Support of Their Opinions on Each of Four Hypothetical Cases Emphasizing Cooperation in Performing a Specific Function

The cases just discussed provided measures of internal consistency of the questionnaire. They also provided information regarding the extent to which school board members were favorable or unfavorable toward plans for cooperation in the performance of selected school district functions. A summary of the responses given by school board members to these cases is presented in Table 16.

The findings reported in Table 16 indicated that board members in metropolitan Kansas City were more opposed than favorable to the cooperative arrangements illustrated in cases A (funds), B (purchasing), and D (teachers). They were more favorable than unfavorable toward case C (sites). The school board members of metropolitan Cincinnati were also more unfavorable than favorable toward the cooperative arrangements illustrated by cases A and D, and they were more favorable than unfavorable toward case C. However, an interesting discrepancy appeared between the expressed attitudes of metropolitan Kansas City board members and those of the metropolitan Cincinnati board members toward case B. This particular case proposed that cooperative purchasing arrangements between school districts might be desirable and could provide benefits of economy, but warned against the possibility of bureaucratic entanglements. Board members of metropolitan Cincinnati responded more favorably to this case than any other case while board members of metropolitan Kansas City were less favorable to this case than any except case D.

TABLE 16. --Favorable, undecided or unfavorable responses to hypothetical cases illustrating cooperation between school districts or other agencies; by %.

|  | Metropolitan Kansas City (N=99) |  |  |  | Metropolitan Cincinnati (N=56) |  |  |  |
|---|---|---|---|---|---|---|---|---|
|  | (funds) | (purchasing) | (sites) | (teachers) | (funds) | (purchasing) | (sites) | (teachers) |
| Case | A | B | C | D | A | B | C | D |
| Favorable | 28.28 | 20.20 | 44.44 | 16.16 | 30.36 | 55.36 | 51.78 | 16.07 |
| Ambivalent* | 32.32 | 36.36 | 32.32 | 33.33 | 25.00 | 35.71 | 32.14 | 30.36 |
| Unfavorable | 39.39 | 43.43 | 23.23 | 50.50 | 45.64 | 8.93 | 16.07 | 53.57 |

*In all cases, responses in this category were reluctant to take a strong stand on the issues involved. In most cases where explanations were given, the responses were ambivalent and vascillated between agreement and disagreement in the course of a single statement. Typical responses assigned to the ambivalent category include

1. I am hot and cold on this question.
2. Uncertain.
3. It might be all right.
4. Naturally, this is always done on a "consulting" basis. Any school board which didn't do careful checks neglects its duty. Another agency or planning agency or planning "authority" which has the power to make the choice -- No.
5. A reasonable idea to use talent. Could become "tricky" and troublesome.
6. This is Blue Sky. Human nature probably won't allow it to happen.
7. Perhaps helpful in making wise decisions.

The gross similarity between the responses to all other cases juxtaposed to the gross dissimilarity of responses to case B again suggested the presence of an intervening variable. In this case it appeared to be the existence, since 1965, of a successful voluntary cooperative purchasing operation administered by the county school district of Hamilton County Ohio, the principal county of metropolitan Cincinnati. A striking adjunct to this finding was the apparent relationship which existed between successful experience with this kind of social invention and a tendency to express positive comments about it or things similar. However, it was discouraging to note that a lack of familiarity and experience with such an arrangement as illustrated in case B tended to be related to negative expressions toward it.

A more vivid perception of the attitudes expressed by school board members toward the cooperative arrangements illustrated in cases A (funds), B (purchasing), C (sites), and D (teachers) was achieved by examining only those responses that could definitely be considered favorable or unfavorable. It can be noted, for example, that of those school board members in metropolitan Cincinnati who took a definitely favorable or unfavorable stance regarding case B, 86.11 percent were favorable while only 13.89 percent were unfavorable.

TABLE 17. -- Favorable or unfavorable responses to hypothetical cases illustrating cooperation between school districts or other agencies; by %.

| | Metropolitan Kansas City | | | | Metropolitan Cincinnati | | | |
|---|---|---|---|---|---|---|---|---|
| Case | (funds) A | (purchasing) B | (sites) C | (teachers) D | (funds) A | (purchasing) B | (sites) C | (teachers) D |
| N | 67 | 63 | 67 | 66 | 42 | 36 | 38 | 39 |
| Favorable | 41.79% | 31.75% | 65.67% | 24.24% | 40.48% | 86.11% | 76.31% | 23.08% |
| Unfavorable | 58.21 | 68.25 | 34.33 | 75.76 | 59.52 | 13.89 | 23.69 | 76.92 |

Breaking down the favorable and unfavorable responses to each case according to the explanations offered by the respondents provided some insight into the motives or attitudinal substructures that may be associated with expressed favorable or unfavorable attitudes. A compelling consistency of motives affecting the tendency to respond favorably or unfavorably to illustrated arrangements for cooperation was apparent. In every case, a most frequently offered explanation in support of a favorable position and an unfavorable position was the same for both metropolitan areas.[9]

In case A (funds), the most frequently offered explanations favorable to the situation were subsumed in the statement "Resulting equalization would provide more money and promote better schools." Some examples of explanations which were grouped under this statement were:

1. We now have districts in our county that have tax bases that range from $7500/pupil to $91,000/pupil. Such inequality does not allow adequate education for many children.
2. Operating funds for smaller districts are difficult to raise, and an inequitable tax base exists. Suggest county wide bases. Would enhance education.
3. Would give equitable result for children involved. I think variation in tax base of districts often

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[9] The results of the content analysis of explanations offered by school board members in support of their positions taken on each case are presented in Appendix A, Tables 26, 27, 28 and 29.

leads to hardship for students who are not at all responsible.

4. The broadened base would make for a more uniform and equitable responsibility and out of such a situation can flow more cohesive quests for enlightened improvements in education and its financing.

Of the statements offered in support of an unfavorable position on the situation cited in case A, those subsumed under the statement "an infringement of the traditional authority of school districts and their right to autonomous, independent action" were the most frequently given. The following explanations were offered as illustrative statements:

1. At the present time I believe the typical citizen would not favorably consider a system whereby his decision on new or additional taxes would be subject to the vote of another school district.
2. Moving towards state and federal control.
3. I desire to retain a high degree of local autonomy in local schools.
4. Population of other districts would out number our votes. We would lose local voice in taxes, etc.

It is important to observe that the statements under which the next most frequently offered set of explanations in support of an unfavorable position were categorized was "just window dressing, a different or more drastic approach needed." Explanations such as the following were included in this category:

1. Further complication of the single property tax base for raising funds would not help. All-out support for income or sales tax base state wide is a much better method of a fair sharing of responsibility.
2. This wouldn't help matters. This finance problem must be solved on a State or Federal level. Eventually private industry may be involved.
3. If a district is not viable either educationally or financially--consolidation not tax sharing is the answer.
4. I feel corrective legislation should be passed re the tax situation in this state. I do not feel the above is a solution to the problem in this state.

What was noteworthy about the exceptions taken by the authors of these statements was that they were opposed to the hypothetical solution to the problem offered in case A (funds), although they acknowledged the dysfunctional aspects of contemporary schemes for financing schools and would like to remedy them. They wanted to revise the system rather than attempt to work around it. If these board members were considered on this basis, as favorable to some attempt at equalization of finances to school districts by promoting larger more heterogeneous tax bases, the ratio of favorable responses to unfavorable responses for this case would be altered significantly, as indicated by Table 18.

TABLE 18.--Reinterpretation of Table 17 to account for positive interpretation of selected negative responses to case A

| | Metro K. C. (N=67) | | Metro Cincinnati (N=42) | |
|---|---|---|---|---|
| | Table 17 | Reinter-pretation | Table 17 | Reinter-pretation |
| Favorable | 41.79% | 52.24% | 40.48% | 57.14% |
| Unfavorable | 58.21 | 47.76 | 59.52 | 42.86 |

The most frequently offered explanations supporting a favorable position to case B (purchasing) were subsumed in the statement "Good business; would provide better buying power, achieve significant economies, and make more money available for instruction." The following items were presented as examples of explanations included under this statement:

1. We operate now with area purchasing and find it satisfactory — This is an area of management savings that still allows the individual district its own purchasing freedoms, yet at savings.
2. You get more for your money.
3. Sounds like good business to buy in volume.
4. If by the nature of your question details can be worked out and there is definite economy, thereby saving tax monies, this would be good business for all, especially the tax payer.

Explanations supporting unfavorable positions on case B were categorized by the statement "Undesirable results from cumbersome, bureaucratic machinery" more frequently than by any other single statement. Examples of reasons or explanations included under this statement included:

1. This sounds great — but large corporations, governments waste more in administration, inefficiency and grafts to offset any savings.
2. Too many possible entanglements. I doubt that there would be a savings when you add cost of storage space, additional personnel required to operate and transportation.
3. I think the overhead (salaries, etc.) and additional red tape would negate most of the financial savings.
4. Bureaucratic entanglements.

The respondents to case B also included some who were unfavorable because the proposal was "just window dressing, a different or more drastic approach is necessary." In this case, however, there were only two such responses from metropolitan Kansas City and none from metropolitan Cincinnati. The presence of only two potentially unaccounted-for positive orientations presented no urgent need to reinterpret the results.

The most frequently offered favorable explanations to case C (sites) were subsumed in the statement "Knowledge of settlement patterns, areas to be developed, etc., necessary to provide an orderly, dependable and rational approach to district growth." Some of the explanations categorized under this statement were:

1. Planning authority is more professional than we are, has current studies available, can help us avoid problems of mislocation of new school; transportation (busses).
2. Makes good sense. Too little planning and zoning over the years has resulted in schools with no land for recreation and parking—schools are next door to factories, etc.
3. This is needed to provide for orderly growth and the proper selection of a site.
4. In cooperating with planning Commissions, school boards get valuable assistance and save possibly a waste of money in building schools in the wrong site.

The categorical statement "Local school districts (communities) are more cognizant of their needs and competent to do their own planning and site selection," subsumed more reasons or explanations in support of an unfavorable position on case C (sites) than any other category. Some of the explanations included under this statement were:

1. In our district we work closely with our people and have never had problems along this line.
2. We work closely with the local community and the school planning commission in selecting sites.
3. Certainly the planning authority's studies should be used but they are not infallible. The needs of the district can best be determined in the district.

4. I feel our local administration is best qualified to determine the locations needed for new sites and that the employment of qualified architects answerable to the Board directly are most responsive to our needs.

The category most frequently employed to classify explanations supporting favorable responses to case D (teachers) was "Better utilization of professional skills and knowledge might improve education and foster economies in staffing." A few of the statements included in this category were:

1. Enable districts to supply better teaching talent.
2. An exchange of ideas and practices is good.
3. This plan would assure that the talent of any given teacher would be used at its best level.
4. It would be good for students.

Explanations supporting unfavorable responses to case D were most frequently subsumed in the statement "would hamper district's responsibility to select and place its own staff and control staff quality." Examples of explanations placed in this category were:

1. We prefer to hire and place our own teachers.
2. We want complete control over our own teachers.
3. We desire a certain teacher with prescribed attitudes, personality, etc. We feel our own judgment based on our experience cannot be exceeded.
4. We can build better educational programs by hiring and keeping better teachers.

### (f) Findings Indicating Preferred Partners among School Districts for Cooperative Endeavors

A previous study (e.g. Brechler) that sought information regarding cooperative orientation of school board members concluded that an important criterion for selection of partners was that the partners be similar in social composition. One of the objectives of this study was to determine if a similar conclusion concerning the board members participating in the study would be warranted. A simple procedure was employed to investigate this variable. Board members were simply asked to name the districts with which they might be willing to establish some cooperative arrangement. Maps and other resources were then used to determine location and to reach other tentative conclusions regarding preferred partners among school districts.

Some of the results of this study which indicated preference of partners for cooperative arrangements among school districts are summarized in Table 19.

TABLE 19. --Location of preferred school districts.

| Location | Metropolitan Kansas City | Metropolitan Cincinnati |
|---|---|---|
| None indicated | 16 | 8 |
| Adjacent or contiguous districts | 66 | 27 |
| Non-contiguous districts | 7 | 3 |
| Not specified ("any suburban district," "all in the county," etc.) | 10 | 18 |
| N | 99 | 56 |

These findings indicated that school board members are not likely to go out looking for potential partners. They tend to accept those that are closest as best or at least most convenient. However, many suburban or suburban-like districts are adjacent to a central city school district. If contiguity was the only factor working in selecting preferred partners, then many suburban districts would appear to be ready to work out some cooperative arrangements with central city school districts. To check for the possibility of this situation, a table was prepared of the number of times the central city was considered involved as a cooperating partner. The findings are recorded in Table 20.

TABLE 20. --Frequency central city district mentioned as a preferred partner

| | Metropolitan Kansas City | Metropolitan Cincinnati |
|---|---|---|
| Yes (including 3 central city respondents in Metro. K. C. ; 4 central city respondents in Metro. Cincinnati) | 19 | 18 |
| No | 64 | 28 |
| No partner mentioned | 16 | 10 |
| N | 99 | 56 |

When considering only board members outside the central city district, about one-fourth of those who indicated a preference favorably regarded the central city district as a cooperative partner. Circumstances in metropolitan Cincinnati probably made even this an inflated figure. All but three of the responses considered favorable to central city districts made reference to preferred districts by citing Hamilton County. Since Hamilton County had a functioning, viable county school district, it was impossible to determine whether board members referring to Hamilton County meant any district in Hamilton County or the Hamilton County District.

At any rate it appeared that contiguity was an important factor in selection of preferred cooperative partners. However, socio-economic similarities and possibly size were the more influential factors. Contiguity may be a determining factor only when adjacent or contiguous districts are similar in socio-economic composition.[10]

### (g) Findings Regarding Functions Board Members Might Consider Cooperating on with Agencies Other than School Districts and the Agencies with which They May Consider Cooperating

Another objective of this study was to investigate the extent to which school board members might consider it desirable to cooperate in the performance of some function with some agency, authority or other local unit of government on the basis of the agency or authority's particular capability or competence to deliver some service. An important segment of the questionnaire was thus devoted to seeking information about functions board members might consider cooperating on with agencies other than school districts, and the agencies, authorities, etc. with which they might cooperate. A summary of the results of this inquiry were presented in Tables 21 and 22.

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[10] An immediate exception to this generalization was that every board member who responded to this survey (5 out of 6) from one of the most affluent school districts in metropolitan Kansas City expressed a willingness to cooperate on some basis with the central city district.

As was the case in the previous content analysis of reasons offered in support of respondents' opinions, the results reported in Table 21 indicated that the most frequently applied category was common to both metropolitan regions. In this instance, the category employed most frequently was "Planning and development." Some of the functions, services, etc. subsumed under this category were:

1. Township planning, commission to evaluate sites and control zoning.
2. Population growth, residential and commercial planning.
3. Zoning.
4. Long range planning, population trends, etc.
5. Construction.
6. Selecting school sites, and construction of schools and buildings.
7. Urban development and selecting school sites.

This finding has particular importance as support for the explanation directed to the lack of meaningful statistical relationship between case C (sites) and its associated function E (see pp. 135-136). It was suggested that the low degree of correlation noted between board member attitudes toward cooperation on a planning

TABLE 21.--Functions mentioned as possible cooperative activities with agencies other than school districts

| | Metropolitan Kansas City | | Metropolitan Cincinnati | |
|---|---|---|---|---|
| Functions | # of times mentioned | % | # of times mentioned | % |
| 1 Public safety and law enforcement | 4 | 6.06 | 4 | 9.52 |
| 2 Library services | 4 | 6.06 | 1 | 2.38 |
| 3 Physical and mental health services | 10 | 15.15 | 8 | 19.05 |
| 4 Social welfare services | 1 | 1.52 | 2 | 4.76 |
| 5 Program for training in vocational and/or technical skills | 4 | 6.06 | 0 | 0.00 |
| 6 Educationally related programs and services for the culturally disadvantaged | 3 | 4.54 | 3 | 7.14 |
| 7 Recreational services and/or extra-curricular programs | 4 | 6.06 | 3 | 7.14 |
| 8 Special educational programs and services | 8 | 12.12 | 2 | 4.76 |
| 9 Data processing | 6 | 9.09 | 3 | 7.14 |
| 10 Planning and development | 15 | 22.73 | 8 | 19.05 |
| 11 Others | 7 | 10.60 | 8 | 19.05 |
| N | 66 | | 42 | |

*Mentioned no more than one or two times each were such functions, programs or services as adult or community-oriented educational programs, inservice programs for teachers, programs for teachers, program or curriculum evaluation, discipline problems, programs for pre-school children, financing the educational program, purchasing, educational TV, community relations, transportation.

function (e.g. site selection) with other school districts, as compared with attitudes toward cooperation on a planning function with a planning authority, may be due to the limited advantage and potential conflict entailed in cooperating with other school districts which have no particular expertise to offer. Regional planning authorities, on the other hand, have less vested, localized interest in education and offer recognized expertise in planning and development.

Information on agencies, authorities, local levels of government, etc., that might be regarded as suitable cooperative partners is summarized in Table 22.

Although the category most often cited in the data is different for each metropolitan area, the three most frequently employed categories were the same for each. Category 9, "local level of governments and officials" was a vague catch-all category employed only when respondents cited such entities as "county government," "city council," etc., rather than a specific agency responsible for relatively well-defined services. This category excepted, the two most frequently employed categories of agencies to which relatively specific and distinct functions could be assigned were "Planning commissions" and "Health centers, associations

TABLE 22. --Agencies other than school districts favorably mentioned as cooperative partner.

| Agencies | Metropolitan Kansas City<br># of times mentioned | Metropolitan Kansas City<br>% | Metropolitan Cincinnati<br># of times mentioned | Metropolitan Cincinnati<br>% |
|---|---|---|---|---|
| 1 Hospitals and medical schools | 5 | 7.77 | 0 | 0.00 |
| 2 Health centers, associations or departments | 9 | 15.79 | 6 | 18.75 |
| 3 Social welfare agencies | 2 | 3.51 | 2 | 6.25 |
| 4 Planning commissions | 11 | 19.30 | 5 | 15.62 |
| 5 Recreation and park departments or commissions | 2 | 3.51 | 1 | 3.12 |
| 6 Libraries and library systems | 3 | 5.26 | 1 | 3.12 |
| 7 Close-by colleges or universities | 4 | 7.02 | 0 | 0.00 |
| 8 Local business and commercial interests | 3 | 5.26 | 0 | 0.00 |
| 9 Local level of governments and officials | 9 | 15.79 | 10 | 31.25 |
| 10 Public school systems or districts | 2 | 3.51 | 0 | 0.00 |
| 11 Other | 7 | 12.28 | 7 | 21.85 |
| N | 57 | | 32 | |

*Mentioned no more than one or two times were such agencies, authorities, etc., as special districts and authorities, law enforcement agencies, research oriented institutions, Title III-financed educational centers, other private and public community institutions, civic clubs and organizations, TV stations and other media and education associations.

and departments." The presence of the former category as a most frequently used category provides additional support to the argument that school board members may be more favorably inclined toward cooperating with a non-school governmental unit or agency which has less vested localized interest in schools and can provide some special or specific competence and expertise than they would be with another school district.

### (h) Findings Regarding Persons or Groups that Might be Considered Influential on School Board Member Attitudes

Another variable investigated in this study was the extent to which selected persons or groups could be perceived as important sources of influence on school board member attitudes. The first part of the investigation was directed toward determining the influence that might be attributed to the superintendent of the district, fellow board members and constituents. It was assumed that people or groups who could be considered supportive of the views expressed in the questionnaire would have influenced or reinforced those views. From this assumption board members were asked to record how they thought "each of the following persons or groups would, as a whole, react to the views" he had expressed in the questionnaire.

They were instructed to record their response on a continuum from "Very favorable and supportive" (value of 6) to "Very unfavorable and non-supportive" (value of 1). The results of this inquiry were recorded in Tables 23 and 24.

TABLE 23. --Extent to which selected persons or groups were considered supportive or non-supportive of expressed views

| | Metropolitan Kansas City | | Metropolitan Cincinnati | |
|---|---|---|---|---|
| Person or group | Mean* | SD* | Mean | SD |
| A Superintendent | 4.6566 | .8940 | 4.9821 | .7004 |
| B Fellow board members | 4.5859 | .8573 | 4.7500 | .8146 |
| C Constituents | 4.5253 | .8846 | 4.5536 | 1.1587 |

*Means and standard deviations were calculated as part of a utility program written to accommodate these data and are presented here because of their familiarity and easy use in interpretation. However, Mean and Standard Deviation are not the statistics used in this study for hypothesis testing.

In general, each of the persons or groups could be considered supportive. In order to determine if one of the selected persons or groups was significantly more supportive than others, a Wilcoxon Sign test was applied to test for significance of difference between A and B, A and C, and B and C for both metropolitan areas. Table 24 presents the results of the tests of significance.

TABLE 24.--Tests of significance of difference of reported influence between (A) superintendent, (B) fellow school board member and (C) constituents

| | Metropolitan Kansas City (N=99) | Metropolitan Cincinnati (N=56) |
|---|---|---|
| A vs B | Z = -1.4295 | Z = -2.1376* |
| A vs C | Z = -1.3995 | Z = -2.9194** |
| B vs C | Z = - .7322 | Z = -1.5000 |

*p < .02
**p < .01

The results reported in Table 24 indicate that in Kansas City the greater degree of influence of superintendents, implied in Table 23, in relation to fellow board members and constituents, should be considered tentative. In metropolitan Cincinnati, however, the assertion that views of school board members were influenced more by superintendents than either their colleagues or their constituents can be made with some confidence.

This conclusion was substantiated by the results of an inquiry to determine if there was reason to believe that different persons or groups may exert more or less influence depending upon the area of policy or decision-making at hand. To provide information on this question, school board members were asked to list in order of importance to them individually up to four individuals (by position) or groups to whom they looked for information or guidance in making decisions or policy in (first) curriculum matters and (second) purchasing equipment and supplies. The request to list in order of importance provided the opportunity to weigh responses on the basis of four points for first listed to one point for the last listed. This procedure not only yielded a count of who was most often listed first, second, etc., but also gave a reading of the pervasive over-all influence of every person or group mentioned.[11]

A composite picture of the influence that could be attributed to the professional personnel of the district, in contrast to other sources of influence (i. e. PTA, salesmen, advisory committees, etc.), is shown in Table 25. When grouped by "professional district personnel" and "others," by weighted influence scores, a one-sided pattern of influence by professionals close to the board was found.

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[11] A complete breakdown of influence scores for all categories of people or groups mentioned is presented in Appendix A, Tables 30 and 31.

TABLE 25. --Weighted influence scores: district professionals vs. others

| | Professional district personnel* | | Others | |
|---|---|---|---|---|
| | Kansas City | Cincinnati | Kansas City | Cincinnati |
| Curriculum matters | 658 | 392 | 121 | 82 |
| Purchasing matters | 609 | 316 | 82 | 80 |

*Professional district personnel were considered to be superintendents; assistant superintendents, director or supervisors; other central office administration; specialists and coordinators; principals; teachers (heads of departments); teachers; school counselors; teacher associations (See Tables 30 and 31 in Appendix A).

Far and away the most pervasive influence on school board members was the district superintendent of schools, regardless of the area of decision-making being considered. In the area of curriculum the combined categories of assistant superintendents for curriculum, and other members of the central administrative staff could be considered next most influential, followed by school principals. In metropolitan Kansas City, school principals were regarded as more important sources of information and guidance than either of the former two categories alone. Individual classroom teachers ranked next in influence.

In the other direction, sources of little or no influence, as indicated by responses from one or both metropolitan regions, were students, school counselors, state department of education guidelines or directives, professional teacher associations and commercial interests. Most of the difference in overall influence between professionals and others noted in Table 25 was accounted for by superintendents, central office administrators, principals and teachers.

In regard to purchasing matters, the previous pattern of influence continues with the superintendent of schools being designated most influential, followed next by assistant superintendents for business affairs or business managers and other central administrative staff and then principals. The influence of teachers, however, was not so marked in purchasing, while commercial interests were increased. Sources of little or no influence were again students, school counselors, state guidelines or directives and teacher associations. Also to be discounted as exerting measurable influence on purchasing matters were study or advisory committees, school board association handbooks and journals, constituent groups, and conventions and exhibits. Again most of the difference in influence between professionals and others could be attributed to superintendents, central office personnel and principals.

# CHAPTER V

# SUMMARY, CONCLUSIONS AND IMPLICATIONS

## Introduction

The impetus for this study was an apparent gap between a need for information on attitudes toward inter-school district cooperation and the general lack of any such specific information.

Proposals for inter-school district cooperation have been supported by several lines of argument. These arguments centered on the issues of socio-economic stratification and governmental fragmentation and their underlying strata of problems: racial segregation, financial inequities and school districts of limited size. The conclusion often taken after consideration of these issues is in support of reorganization or consolidation of school districts. However, citizens and their political representatives have usually been unwilling to support revisions in local government which may adversely affect their accustomed life-style: sense of community, access to decision makers, normative pattern of behavior, choice of people with whom they and their children are likely to have encounters. Perhaps cooperation among school districts could bring about improvements without arousing undue reaction.

## Restatement of the Problem

To speak of such abstract notions as vital elements of community life style without some specific referents is of little practical use. In order to reduce these theoretical prescriptions to practical knowledge regarding inter-school district cooperation the purposes of this study were (1) to determine the attitudes of school board members of selected public school districts in selected metropolitan areas toward inter-school district cooperation, and (2) to determine the extent to which certain selected variables were related to school board member attitudes. Primary questions to which inquiry was directed were

(1) on what school district functions do school board members appear willing to engage in cooperative activity?

(2) to what extent do selected variables appear to be related to school board member attitudes on this topic?

(3) to what extent do particular persons or groups appear to influence views and opinions of school board members?

(4) with which other school districts do board members appear favorable toward cooperation?

(5) with what agencies other than school districts do school board members indicate a willingness to cooperate?

## Conclusions

The results of this study indicated that the sample of school board members represented herein was similar in selected aspects to the samples of school board members reported in other studies. Furthermore the results of a comparison of late returns with non-late returns indicated that the sample of school board members reported here was probably very similar to board members not represented in this study but within the population of school board members from which the sample was drawn. The evidence supported the conclusion that the sampling procedures of this investigation were adequate to its purposes.

### Attitudes of school board members toward inter-school district cooperation on selected school district functions

The theoretical undergirding of this investigation proposed that board members might be amenable toward cooperation for the performance of some functions but opposed to cooperation on certain other functions. In theory this choice should be partly a function of the particular predispositions of the individual, but certain functions should emerge as clearly possessing more or less cooperative potential than other functions. Those with favorable potential for cooperation should be those which offer bonus programs, program benefits or economies. Those with unfavorable potential for cooperative activity would be those functions located close to the base of community or school district's vital concerns and therefore jealously guarded. Based on these considerations, certain functions were tentatively identified as potential cooperative functions, and other functions could be tentatively identified as potential uncooperative functions. Those functions considered to have cooperative potential were called functions with economic implications or FEI's and those items considered to have little or no cooperative potential were called functions with social implications or FSI's. These labels were applied because they are to some extent descriptive of the type of function involved in each category and because they have been used in other studies.

The process of classifying functions by these two categories resulted in the most important methodological problem in the study. The initial procedure used to classify the inventory items involved a panel of 72 undergraduate history students who were requested to act as disinterested judges and assign each item in a list of school district functions to the FSI category or FEI category according to explanations of each category furnished by this investigator. As discussed in Chapter IV, the classification of items by these judges was not consistent with the implications of literature in the field. Nevertheless, as an attempt to gain objectivity, the functions most frequently assigned to the scale of functions with economic implications (FEI) and those most frequently assigned to the scale of functions with social implications (FSI) by this set of judges were tentatively assigned to represent those sets of functions on the questionnaire. Subsequent returns from the metropolitan Kansas City school board members tended to agree more with the way Williams suggested functions would be reacted to than with the judgment of 72 history majors. Williams proposed that life-style mechanisms (FSI's) of municipal governments such as regulating land use, housing, building codes and urban renewal would not be favorable considered for cooperation. System-maintenance mechanisms (FEI's) such as radio, television, transportation and other functions which for technological and financial reasons are usually operated as large area networks, may be regarded quite favorably for cooperative performance.[1] School district functions that roughly correspond to the mentioned municipal functions are: (FSI) selecting school sites, construction of schools, acquiring funds, and teacher placement; (FEI) data processing, educational TV, special education programs, and purchasing supplies. Therefore certain functions were shifted from one category to the other to establish better agreement with Williams' classification of functions. Analysis of later returns from metropolitan Cincinnati affirmed the desirability of revising the scales.

Returning to the discussion of attitudes toward inter-school district cooperation, the evidence was conclusive that school board members tended to be more favorable toward functions which may offer benefits or economies without unduly limiting a district's authority and control over vital issues. Board members, for instance, were most favorable toward cooperation for functions such as special education and data processing and least favorable toward cooperation for functions such as teacher placement and constructing schools. As a group, school board members were significantly more favorable toward cooperation on functions with economic implications (FEI) than they were on functions with social implications (FSI).

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[1] Oliver P. Williams, "Life Style Values and Political Decentralization in Metropolitan Areas," Southwestern Social Science Quarterly, XLVIII (December, 1967), 299-309.

### Relationship between tenure, socio-economic status and localism and attitudes toward inter-school cooperation

The existence of a discernible relationship between the variables, tenure and socio-economic status (SES), and attitudes toward cooperation was not established (Table 11, hypotheses 3, 4 and 7). Statistical treatment indicated no evidence of any measurable relationship between these variables for school board members in either metropolitan area surveyed.

However, the importance of the individual's orientation toward cooperative behavior was clearly indicated in metropolitan Kansas City, where the localism variable was found to be significantly related to attitudes of school board members toward inter-school district cooperation. The localism variable was intended to project an individual's tendency to be preoccupied with the immediate community to the virtual exclusion of the larger social scene or to be more oriented toward the world outside the local community.[2] The former orientation is local, the latter, cosmopolitan. It was expected that a cosmopolitan orientation would be part and parcel of a more favorable attitude toward inter-school district cooperation. The results indicated that as local-cosmopolitan orientation moved on the continuum from local to cosmopolitan, scores on the FSI scale and the FEI scale became greater (i. e. more favorable toward cooperation). Furthermore, those board members identified as cosmopolitan scored significantly higher on both the FSI scale and FEI scale than board members identified as local. In other words cosmopolitans tended to be more favorable to inter-school district cooperation than locals.

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[2] John Suttoff, "Local-Cosmopolitan Orientation and Participation in School Affairs," Administrators Notebook, IX (November, 1960), 1.

A major finding of the study, as it pertained to board members of metropolitan Kansas City, resulted from an examination of the relative importance of individual orientation versus function attributes. The findings indicated that the implications certain functions may have for community life-style emerged more strongly when board members with a local orientation were considered than when board members with a cosmopolitan orientation were considered. Locals were not likely to be very cooperative toward functions with social implications (FSI) regardless of how they regarded cooperation on functions with economic implications (FEI). Cosmopolitans on the other hand were more flexible. The more favorable they were toward cooperation on FEI's, the more favorable they were toward cooperation on FSI's.

However, similar results were not found for metropolitan Cincinnati. Statistical findings concerning the relationship between local-cosmopolitan orientation and attitudes concerning cooperation suggested that no measurable relationship was involved. This lack of relationship was hardly to be expected, given the nature of the variables, and warranted an explanation. The inclination of this investigator was to suggest that the board members of Cincinnati were more cautious in responding to the three items comprising the localism scale than were board members from Kansas City. They qualified their responses to the extent that the power of the items to discriminate between locals and cosmopolitans was severely diminished. A more carefully constructed localism scale of more items less subject to personal qualification might yield the expected results.

## Reasons and explanations given in support of attitudes and opinions about inter-school district cooperation

The four hypothetical examples of inter-school district cooperation which were primarily developed to give a reading of internal consistency for the questionnaire provided additional findings which supported the position that economic or administrative considerations were usually given when functions were considered appropriate for inter-district cooperation. This can be contrasted to issues of control and authority which were raised when unfavorable consideration was given to inter-district cooperation on some function.

The most frequent categories of statements given in support of favorable opinions about these four cases were

A (funds)
Resulting equalization would provide more money and promote better schools.

B (purchasing)
Good business, would provide better buying power, achieve significant economies, and make more money available for instruction.

C (sites)
Knowledge of settlement patterns, areas to be developed, etc., necessary to provide an orderly, dependable and rational approach to area growth.

D (teachers)
Better utilization of professional skills and knowledge might improve education and foster economies in staffing.

In contrast, the most frequent categories of statements given in support of unfavorable opinions about the cases were not usually negative corollaries of the statements offered to support favorable opinions, but invoked a different set of principles altogether.

A (funds)
An infringement of the traditional authority of school districts and their right to autonomous independent action.

B (purchasing)
Undesirable results from cumbersome, bureaucratic machinery.

C (sites)
Local school districts (communities) are more cognizant of their needs and competent to do their own planning and site selection.

D (teachers)
Would hamper districts responsibility to select and place its own staff and control staff quality.

The one departure in the trend of answers was found with regard to case B. The categorical statement most frequently employed to support unfavorable opinions about this case cited economic considerations and administrative feasibility, the same category of responses noted in support of positive opinions. It can be recalled that case B was the only case situation offered which happened to correspond to an actual cooperative program. This program was for cooperative purchasing and was favorably regarded by those involved with it.

It is perhaps an unjustified leap from this bit of data, but nonetheless intriguing, to speculate that the cooperative potential of a given function might be measured by the kinds of statements offered in support of favorable or unfavorable positions taken toward cooperative arrangements for its performance. That is, a function may have more potential for cooperative performance if statements opposed to it are of the "bureaucratic entanglements would eliminate savings" variety than if such statements suggest a desire to retain a high degree of local autonomy in local schools.

### Preferred school district cooperative partners

The evidence in regard to preferred partners for cooperative educational activities suggested that school board members were most likely to prefer other nearby school districts which are similar to themselves in socio-economic composition. Only in the case of a rather notable exception was there more than token indications of willingness on behalf of suburban school districts to designate central city school districts as suitable partners for cooperative arrangements.

### Preferred cooperative partners other than school districts

Although not conclusive by virtue of a rather small number of responses to the item concerned with this variable, certain findings of this study did tentatively suggest that school board members may be positively oriented toward the prospect of cooperating with certain units of local government or certain agencies or authorities for the performance of some function or service. Most frequently mentioned in this regard were cities and counties and their officials. The most frequently mentioned specific agencies, however, were planning commissions and health departments or associations. The mention of planning commissions at this frequency level was particularly noteworthy since a planning function — i. e. selecting school sites, was not favorably considered for cooperative activity among school districts. It may well be that school board members are not prone to consent to diminished control of a valued function through collaboration with a unit of government whose similarity of interests might cause conflict. But they may be more favorable toward cooperative decision-making concerning a valued function if the cooperative partner is of demonstrated competence in a designated field and is without as much vested interest in the schools. The most frequently mentioned functions which were considered appropriate for cooperative activity with agencies other than school districts were those considered part of the services offered by planning commissions and health departments. These were planning and development, and physical and mental health services.

### Sources of influence of the expressed attitudes and opinions of school board members

Regardless of the approach taken to gain some knowledge of sources of influence on school board member attitudes and opinions, the district superintendent emerged as most influential. To a degree this should be expected of a position whose incumbent is the executive arm of the school board charged with the active administration of the school system. The superintendent was considered to be most favorable and supportive to views expressed in the questionnaire and he was most often sought out for guidance and information regarding certain areas of decision-making. What was not expected but should be emphasized was the extreme degree of influence the superintendent enjoyed. Given certain limitations in equating influence with supportiveness and source of counsel, the district superintendent had no close challenger to the influence he brought to bear on school board members.

## Summary of Conclusions

The evidence indicated that the appropriateness of a particular function or service as an area of cooperative activity was primarily determined by whether that function was judged to be a vital concern to the expression of a district or community's life-style, or whether it was not of such vital concern and cooperative performance would offer substantial bonuses or benefits. School board members were significantly more favorable toward inter-school district cooperation on the latter functions than the former. The findings also suggested that the board members who were more oriented toward the outside world tended to be more favorable to inter-school district cooperation than school board members who tended to be preoccupied with the immediate community, particularly with regard to functions with social implications. There was also reason to believe school board members were amenable to proposals for cooperative activity with governmental agencies other than school districts, particularly for the performance of such functions as mental and physical health services, and planning and development. The person most likely to bring decisive influence to bear on propositions or proposals for cooperative performance of school district functions and services was the district superintendent.

## Implications

Some important implications resulting from this study concerned the functions and services school board members might consent to delegate to inter-district cooperation and the impact this consent, translated into operable programs, might have on the manifold urban educational problems sketched out in Chapter I.

It can be concluded from the results of this study that school board members tend to be relatively favorable to proposals for inter-school district cooperation on functions that include

providing special reading programs
establishing a data processing facility
evaluating the educational program
providing educational radio and TV
selecting and purchasing classroom supplies
providing educational programs for the culturally disadvantaged.

They are less favorable toward such proposals on functions that include

determining salary schedules
selecting school sites
constructing schools and buildings
acquiring operating funds
providing extracurricular activities and programs
assigning teachers to schools.

These listings should be considered partial and incomplete. By application of the arguments previously employed in assigning functions to the FEI category and FSI category (by determining whether the functions in question essentially had implications on regulatory powers, control and authority, or if the implications for the cooperative performance were essentially technological and financial in nature), many other functions or responsibilities could be added to these lists.

Among the positively regarded functions, special reading programs, data processing, educational TV, and programs for culturally disadvantaged appeared to be given very strong approval for inter-school district cooperation (see Table 12). Given some incentive such as Title III funds or a highly-motivated innovator to get things moving, the cooperative performance of any or all of these functions promised significant program bonuses for the participating districts.

Voluntary cooperation among school districts has usually taken the form of a study council or Superintendents' study group.[3] These are informal organizations usually connected with an area university through the membership of interested or eligible faculty.

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[3] Robert J. Havighurst and Daniel U. Levine, Education in Metropolitan Areas (Boston: Allyn and Bacon, revised and in press), chapter 6.

Operating funds are acquired by charging dues of each member institution or district. The capability of such organizations to perform services is limited in most cases to those which require minimal capital outlay. These include research studies, program evaluations, and developmental activities such as inservice training and workshops for teachers, administrators and school board members. A study council seems well qualified to operate a program for combined purchasing.

However, the obvious limitation of this kind of organization would speak to a different approach for the performance of such functions as data processing or educational TV. At least two models are available which illustrate how cooperative programs for performance of these functions might be operated. The first to be considered are the Boards of Cooperative Educational Services in New York.[4] These boards were set up to enable school districts to combine resources in order to provide services they could not otherwise afford, or to gain certain economies of scale. New York maintains a state-wide system of such regional boards, and each board is financially aided by the state. However, each local district has the option of whether to participate in the services offered by the board, and services must be purchased by some means by the participating district. The boards serve a large territory, usually several counties or parts of several counties, and offer a large variety of services.

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[4] Justus A. Prentice, "A Cooperative Board Provides Regional Services," Educational Leadership, XXIV (March, 1967), 551-559.

Another way interested districts could implement a multi-district cooperative data processing program or educational TV program is through the provision of Title III of the Elementary and Secondard Education Act of 1965, which provides federal funds for "innovative" and "exemplary" projects to improve the quality of education in local school districts. In 1968 four Title III programs were functioning in the metropolitan Kansas City area. The programs were concerned with aiding children with learning problems, inservice training for teachers, and providing psychological services and social work to children in selected schools. The most heavily funded program was funded for $437,411.[5] Either of these two ways of proceeding is capable of supporting functions calling for expenditures of large amounts of capital.

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[5] Robert P. Fain, "A Survey of Cooperative Educational Programs in the Metropolitan Kansas City Area," Kansas City: The Center for Study of Metropolitan Problems in Education, University of Missouri at Kansas City, 1968, p. 5, (Mimeograph).

However, Title III funds are made available for a given project for no longer than three years, during which time the cost of operating the program must be absorbed by local interests if the program is to continue.

Of the functions here considered amenable to voluntary cooperative performance, only that which would develop programs for the culturally disadvantaged child could realistically be expected to offer any significant solutions to problems of urban education. The promise and potential for programs in this area stem from two important qualities. First they deal with students, and second they necessarily deal with inner city schools, since this is where the great majority of disadvantaged students are located. Another promising quality of this function was that most of the school board members responding favorably to it were board members of suburban districts. This situation necessarily implies the interaction of suburban and inner-city districts. However, it should be recalled that with some notable exceptions, school board members outside the central city did not mention the central city school district as a participant in cooperative school programs. Nonetheless, the willingness or at least interest noted of a few board members of a few school districts should not be passed by for lack of significant numbers. Those few suburban districts whose board members were favorable to suburban-central city participation should be sounded out as to the possibility of implementing at least minimal cooperative programs. These might include in-service training programs for teachers and administrators, cultural exchange programs for students, cooperative film libraries; and inter-ethnic material centers. Quite possibly exchange programs such as those now in progress in the metropolitan Hartford area could be started. In 1968 about 800 Negro and Puerto Rican students from Hartford inner city areas were transported to schools in many of the surrounding white suburban towns. Federal and state funds were obtained for the Hartford program to help defray costs of tuition and transportation.[6]

When one considers that less than a fourth of board members contacted in this survey favorably regarded the central city as a cooperative partner (Supra, p. 150), indications are that not nearly as many school districts in the metropolitan areas included in this study would be willing to participate in such a venture as there were in Hartford (25 school districts). However any step toward the solution of the problems ingrained in segregation and stratification in the public schools is an important step. The consequences of such a program may be limited, but if even a few dozen students and their families could benefit by significant interaction with people of another race or ethnic group (Supra, pp. 13 - 14), it may be that significant academic gains could be attained by the minority students involved. In agreement with Coleman's conclusions on this point (Supra, p. 11), experience with the Hartford project indicated that those students bussed to middle income suburban schools achieved at a significantly higher rate than comparable students left behind in the low income schools of the Hartford ghetto.[7]

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[6] Karan Branan, "Hartford Bussing Plan Succeeds," Education News (October 7, 1968), 9.

Voluntary approaches to inter-school district cooperation are valuable devices for providing and coordinating a limited spectrum of educational support services. Through membership in a Title III program, a metropolitan study council or a state or federally-funded area educational service agency, certain metropolitan wide or area wide educational programs can be offered in a systematic and coordinated way. However, for the following reasons, which strongly concur with the arguments put forth in Chapter I, the evidence resulting from this study did not support the conclusion that voluntary modes of cooperation could offer an adequate response to the complex problems of stratification and fragmentation baffling metropolitan area schools.

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[7] Ibid.

1. The kinds of school district functions most likely to affect the serious substrata of metropolitan educational problems are those which school board members appear least likely to relinquish from local control. These include financing, location of school sites and teacher placement.
2. Economies of scale may not be realized if many districts are unwilling to participate.
3. Cooperative service agencies are considered to be of little help to very large central city districts.
4. Cooperation will not reduce the number of school governments in metropolitan areas in which there are too many school districts to allow for joint planning with non-school governments.
5. Cooperation will not produce the systematic change required to realize the goal of equal educational opportunity.[8]

For reasons very much like these, organizations such as the American Association of School Administrators and the Advisory

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[8] This set of reasons is identical in most respects to the set of reasons given by Havighurst and Levine to the same argument in Education in Metropolitan Areas, Chapter VI.

Commission on Intergovernmental Affairs have called for the establishment of regional education agencies with legal authority to carry out programs and perform the functions of educational governance which are most appropriately carried out at the regional level. There are compelling arguments for a regional educational authority. But strong evidence that school board members are not likely to give up local control of certain school district functions points to a multi-level approach to the governance of public education. Important implications rising from this study concerned the possibility of offering sound bases for deciding what functions may be most appropriately handled from a regional basis. However, more important implications derive from the possibility of developing a strategy for the division of labor between the regional authority and operating school districts that may be more salable to the public than has usually been the case in the past.

This study agreed with previous research which indicated that board members may be willing to relinquish certain functions of school districts to multi-district participation,but the responsibility for other functions which may have eminent implications for community life style would be dearly held. Thus, it may be that a strategy for implementing a metropolitan or regional educational agency should emphasize the regional authority responsibility for those functions many school board members indicate some willingness to relinquish. The functions would include responsibility for

special programs: remedial reading, speech correction, culturally disadvantaged, etc.
data processing
program evaluation
educational radio and TV
purchasing: supplies and equipment

Even without reorganization of local administrative districts to achieve a measure of social class heterogeneity, operation of special programs by the regional district offers some opportunity for the interaction of diverse groups of people through imaginative implementation of programs. Magnet elementary schools located in the city such as the Martin Luther King elementary school in Syracuse, New York,could offer exemplary academic programs to children from the suburbs. Secondary programs such as the Parkway School Without Walls project, originated in Philadelphia and now in Chicago and being considered by interested groups in Kansas City, Missouri, could draw from the entire metropolitan area if operated by a regional education authority.

Certain functions appear to be most appropriately assigned to the continued jurisdiction of local administrative units. If assignmentswere made on the preference of school board members, the functions would include responsibility for

- determining salary schedules
- selecting school sites
- constructing schools and buildings
- acquiring operating funds
- providing extracurricular activities and programs
- assigning teachers to schools

The dilemma of this situation is that these functions included ones which have previously been identified as most important in solving serious metropolitan educational problems. For instance, one of the most frequently cited needs for a regional authority is to achieve region-wide taxation for school purposes. The current fragmented pattern of school districts creates a mosaic of rich and poor school districts, sometimes side by side, which acts as a serious barrier to the achievement of equal educational opportunity.

There is little doubt that a more equitable way of financing public education is necessary. However, the results of this study indicated that school board members were reluctant to relinquish their authority to acquire operating funds, particularly to a limited-sized coalition of their peers. (This last statement is based on responses made by school board members to the hypothetical case illustrating cooperation for acquiring funds.) In addition several board members indicated that the state was the appropriate agency for financing the schools. These tentative findings plus advocacy of state-financed education by the Advisory Commission on Intergovernmental Relations,[9] as well as recent attention given to this issue by Commissioner James Allen and Dr. James Conant[10] suggested caution in assigning the fund-raising function to the regional agency. In fact it could be argued that severe limitations may be placed on a regional authority's creative potential for implementing area-wide programs in the city, or promoting programs for disadvantaged students for the city, if it was dependent on a largely suburban vote for the success of its levy campaigns at the polls. Any proposal for adoption and implementation of a regional authority as a second-tier educational unit should seriously consider provisions for complete state financial support of public schools. The regional agency would thus be funded by the state to support the performance of functions appropriate to it while local administrative units would also be funded by the state to carry on the day-by-day operation of the schools.

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[9] Advisory Commission on Intergovernmental Relations, State Aid to Local Government (Washington, D.C.: Government Printing Office, April, 1969).

[10] James E. Allen, Jr., "Educational Priorities and the Handicap of Local Financing," in Carroll F. Johnson and Michael D. Usdan (eds.), Equality of Educational Opportunity in the Large Cities of America: The Relationship Between Decentralization and Integration (New York: Teachers College Press, Columbia University, 1969), pp. 69-82.

Another highly-valued function with significant implications for the entire metropolitan area is site selection and related planning functions. Even disregarding the potential for strategic location of schools in such a way as to foster integration efforts, school districts and their patrons have a vested interest in selecting sites, before building is urgent, with a degree of confident knowledge about the availability of services (i. e. sewers and roads, traffic conditions, growth prospects for the area, potential valuation for the surrounding real property, kinds of housing in the area, etc.). Lack of such knowledge has resulted in much expense and inconvenience due to unanticipated events.

Tentative evidence resulting from this study suggested that school board members may be considering this function in its proper perspective, that of mutual responsibility between planning commissions or authorities and educational agencies.

The evidence implied that some consideration should be given to formally incorporating combined power provisions for physical planning, including site selection with a regional planning commission, into proposals for establishing a regional educational structure.

Other functions should probably remain the exclusive domain of local school boards. School board members were adamant about retaining control of teacher recruitment and placement. In order to facilitate this process, local boards should retain as much budgetary control as possible, including salary schedule determination. If the state were to accept responsibility for funding the schools, the large discrepancies between school districts in funds available for teacher salaries would mostly disappear. State financing would have an equalizing effect on teacher salaries across the state. However, budgets submitted to a reviewing board (which could be a function of the regional agencies) in metropolitan regions should reflect the higher costs of the area.

## Implications for Future Research

The major outcomes of this study were (1) confirmation of the proposition that school board members will probably respond favorably to appropriate proposals for inter-district cooperation for the performance of certain supportive functions (functions with economic implications), but will be decidedly less favorable to such proposals for performing certain other supportive functions (functions with social implications); and (2) locals, in contrast to cosmopolitans, were likely to be unfavorable toward cooperation on FSI's regardless of how they feel about FEI's. The choice of which functions should be assigned to which category depended on a complicated set of underlying motives and at itudinal substructures. Motivation (other than purely personal foibles) to cooperate on some functions and not on others appeared to be prompted by different sets of considerations. Rather than turning up the two sides of an argument, two different arguments were invoked. One considered the possibility of gaining additional programs or services, or of certain economic benefits; the other considered the possibility of losing significant control and authority of valued elements of community life-style.

The research design employed here was not without methodological fault. The faults themselves impose implications for further research.

1. This study should be replicated, employing a better procedure for achieving content validity of the items included in the attitude scales.

2. Replication of the study, employing a more cogently constructed local-cosmopolitan scale, less subject to interpretation by individual respondents, should also be considered. The potential value of being able to make reliable judgments about individual orientations concerning educational matters from clues in behavior toward non-educational matters should not go unexplored.

3. Any inherent, non-avoidable flaw affecting the validity of any school board study is the continuous turn-over of personnel constituting that classification of persons. From this fact alone this study should be replicated in about five years.

Other aspects of this investigation were essentially of an exploratory nature, but identification of several potential areas for future research has resulted. Some of these are:

1. More extensive investigation of functions and services which non-educational agencies could provide for the school.

2. Additional investigations of the attitudes school board members may have of non-educational performance of supportive educational functions.

3. Investigation or elaboration of the ways and means by which educational and non-educational agencies can cooperate to perform certain functions.

4. An investigation of school board members' preference of alternative means of performing certain supportive functions, particularly acquiring operating funds.

The concept of retaining local control of some areas of school district operation and permitting regional operation of other areas of school district responsibility can direct the best features of what Robert Wood called the only two vehicles worthy of trust in America — grass roots democracy on the one hand, and the economic efficiency of big business on the other[11] — toward realization of another American ideal, equal educational opportunity. Hopefully the information found and conclusions reached in the process of this investigation can find useful application in the continuing search for viable means of organizing and operating our schools.

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[11] Robert Wood, Suburbia: Its People and Their Politics (Boston: Houghton, Mifflin Co., 1959), p. 84.

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# APPENDICES

# APPENDIX A

TABLE 26. --Summary of statements supporting favorable positions, and unfavorable positions on Case A (funds); by frequency and percent

| | Metropolitan Kansas City | | Metropolitan Cincinnati | |
|---|---|---|---|---|
| | N | % | N | % |
| Statements supporting a favorable position | N=28 | | N=17 | |
| 1 Good idea; limited, vague or unclassifiable explanation. | 4 | 14.28 | 4 | 23.53 |
| 2 Good idea, with reservations. | 3 | 10.71 | 1 | 5.88 |
| 3 Common goals would elicit more citizen support. | 4 | 14.28 | 0 | 0.00 |
| 4 Resulting equalization would provide more money and promote better schools | 8 | 28.56 | 9 | 52.94 |
| 5 Good as far as it goes, but what is needed is a completely different or more drastic approach. | 4 | 14.28 | 2 | 11.76 |
| 6 Advantages of cooperation without consolidation. | 1 | 3.57 | 0 | 0.00 |
| 7 No reason given. | 4 | 14.28 | 1 | 5.88 |

## APPENDIX A (continued)

Table 26 (continued)

| Statements supporting an unfavorable position | Metropolitan Kansas City | | Metropolitan Cincinnati | |
|---|---|---|---|---|
| | N | % | N | % |
| | N=39 | | N=25 | |
| 1 We're capable of managing quite well with things as they are. | 4 | 10.26 | 5 | 20.00 |
| 2 In general, an infringement of the traditional authority of school districts, and their right and duty of autonomous, independent action. | 11 | 28.21 | 7 | 28.00 |
| 3 Unresponsive to unique situations in individual districts. | 4 | 10.26 | 3 | 12.00 |
| 4 Just window dressing, a different or more drastic approach needed. | 7 | 17.95 | 7 | 28.00 |
| 5 Opposed; limited, vague or unclassifiable explanation. | 9 | 23.08 | 2 | 8.00 |
| 6 No reason given. | 4 | 10.26 | 1 | 4.00 |

## APPENDIX A (continued)

TABLE 27. --Summary of statements supporting favorable positions, and unfavorable positions on Case B (purchasing); by frequency and percent

| | Metropolitan Kansas City | | Metropolitan Cincinnati | |
|---|---|---|---|---|
| | N | % | N | % |
| Statements supporting a favorable position | N=20 | | N=31 | |
| 1 Good business; would provide better buying power, achieve significant economies, and make more money available for instruction. | 12 | 60.00 | 26 | 83.87 |
| 2 Particularly good for smaller districts. | 1 | 5.00 | 0 | 0.00 |
| 3 Advantages of cooperation without consolidation or reorganization. | 1 | 5.00 | 0 | 0.00 |
| 4 Good idea; limited, vague or unclassifiable explanation. | 0 | 0.00 | 0 | 0.00 |
| 5 Good idea, with reservations. | 3 | 15.00 | 5 | 16.13 |
| 6 No reason given | 3 | 15.00 | 0 | 0.00 |

## APPENDIX A (continued)

Table 27 (continued)

| | Metropolitan Kansas City | | Metropolitan Cincinnati | |
|---|---|---|---|---|
| | N | % | N | % |
| Statements supporting an unfavorable position | N=43 | | N=5 | |
| 1 We're managing quite well with things as they are. | 2 | 4.65 | 1 | 20.00 |
| 2 Undesirable results from cumbersome bureaucratic machinery. | 14 | 32.56 | 2 | 40.00 |
| 3 In general, an infringement of the traditional authority of school districts and their right and duty to independent action. | 3 | 6.98 | 1 | 20.00 |
| 4 Just window dressing, a different or more drastic approach is needed. | 2 | 4.65 | 0 | 0.00 |
| 5 Local districts can better gauge the quality and appropriateness of equipment and supplies to meet their specific and individual needs. | 8 | 18.60 | 0 | 0.00 |
| 6 Opposed, limited, vague or unclassifiable explanation. | 5 | 11.63 | 1 | 20.00 |
| 7 Opposed with reservations. | 3 | 6.98 | 0 | 0.00 |
| 8 No reason given. | 6 | 13.95 | 0 | 0.00 |

## APPENDIX A (continued)

TABLE 28. --Summary of statements supporting favorable positions, and unfavorable positions on Case C (sites); by frequency and percent

| | Metropolitan Kansas City | | Metropolitan Cincinnati | |
|---|---|---|---|---|
| | N | % | N | % |
| Statements supporting a favorable position | N=44 | | N=29 | |
| 1 Knowledge of settlement patterns, areas to be developed, etc., necessary to provide an orderly, dependable, and rational approach to district growth. | 19 | 43.18 | 13 | 44.83 |
| 2 Good idea; limited, vague or unclassifiable explanation. | 7 | 15.91 | 11 | 37.93 |
| 3 Good idea as long as emphasis is "Consultation without obligation." | 4 | 9.09 | 4 | 13.79 |
| 4 Good idea, with reservations. | 6 | 13.64 | 0 | 0.00 |
| 5 No reason given. | 8 | 18.18 | 1 | 3.45 |

## APPENDIX A (continued)

Table 28 (continued)

| Statements supporting an unfavorable position | Metropolitan Kansas City N | Metropolitan Kansas City % | Metropolitan Cincinnati N | Metropolitan Cincinnati % |
|---|---|---|---|---|
| | N=23 | | N=9 | |
| 1 Local school districts (communities) are more cognizant of their needs and competent to do their own planning and site selection. | 0 | 39.13 | 5 | 55.56 |
| 2 Things already too fouled up to effect any advantage. | 1 | 4.35 | 0 | 0.00 |
| 3 Planners have been frequently wrong or have used bad judgment and cannot be depended upon. | 4 | 17.39 | 1 | 11.11 |
| 4 Planning commissions are too prone to political influence and conflicts of interest. | 2 | 8.70 | 0 | 0.00 |
| 5 An untenable situation without procedures for handling differences of opinion. | 1 | 4.35 | 0 | 0.00 |
| 6 Schools are built for "now" not for the distant future. | 2 | 8.70 | 0 | 0.00 |
| 7 Opposed, with reservations. | 2 | 8.70 | 3 | 33.33 |
| 8 No reason given. | 2 | 8.70 | 0 | 0.00 |

## APPENDIX A (continued)

TABLE 29. --Summary of statements supporting favorable positions and unfavorable positions on Case D (teachers); by frequency and percent

| | Metropolitan Kansas City | | Metropolitan Cincinnati | |
|---|---|---|---|---|
| | N | % | N | % |
| Statements supporting a favorable position | N=16 | | N=9 | |
| 1 Better utilization of professional skills and knowledge might improve education and foster economies in staffing. | 4 | 25.00 | 3 | 33.33 |
| 2 Good idea; limited, vague or unclassifiable explanation. | 3 | 18.75 | 2 | 22.22 |
| 3 Good idea, with reservations. | 4 | 25.00 | 1 | 11.11 |
| 4 Good teachers would appreciate the challenge and opportunity. | 1 | 6.25 | 1 | 11.11 |
| 5 Could reduce teacher shortage. | 1 | 6.25 | 1 | 11.11 |
| 6 No reason given. | 3 | 18.75 | 1 | 11.11 |

## APPENDIX A (continued)

Table 29 (continued)

| | Metropolitan Kansas City | | Metropolitan Cincinnati | |
|---|---|---|---|---|
| | N | % | N | % |
| Statements supporting an unfavorable position | N=50 | | N=30 | |
| 1 In general, an infringement of the traditional authority of school districts and their right and duty of independent action. | 8 | 16.00 | 5 | 16.67 |
| 2 Politics and "Teacher power" would intervene. | 5 | 10.00 | 0 | 0.00 |
| 3 Cumbersome and unnecessary administrative problems. | 6 | 12.00 | 2 | 6.67 |
| 4 Competition for salaries and placement is desirable. | 2 | 4.00 | 0 | 0.00 |
| 5 Our district manages quite well with things as they are. | 1 | 2.00 | 3 | 10.00 |
| 6 Would hamper district responsibility to select and place its staff, and control staff quality. | 12 | 24.00 | 7 | 23.33 |
| 7 Opposed; limited, vague or unclassifiable explanation. | 8 | 16.00 | 7 | 23.33 |
| 8 Opposed with reservations. | 1 | 2.00 | 3 | 10.00 |
| 9 No reason given. | 7 | 14.00 | 3 | 10.00 |

## APPENDIX A (continued)

TABLE 30. --Sources of guidance and information in curriculum matters.

| | Metropolitan Kansas City | | | | | Metropolitan Cincinnati | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1st | 2nd | 3rd | 4th | Weighted Total | 1st | 2nd | 3rd | 4th | Weighted Total * |
| 1 Other board members | 0 | 3 | 1 | 1 | 12 | 1 | 2 | 1 | 1 | 13 |
| 2 Superintendents. | 59 | 10 | 4 | 3 | 277 | 31 | 12 | 0 | 1 | 161 |
| 3 Asst. superintendents, directors or supervisors for instruction or curriculum. | 9 | 10 | 5 | 0 | 76 | 12 | 10 | 1 | 1 | 81 |
| 4 Asst. superintendents, directors or supervisor for finance or business affairs; business managet; purchasing agent. | | | | | | | | | | |
| 5 Other members of central administrative staff | 6 | 12 | 4 | 0 | 68 | 4 | 5 | 2 | 1 | 36 |
| 6 School district employed specialists, consultants and coordinators. | 1 | 1 | 2 | 2 | 13 | 0 | 0 | 1 | 0 | 2 |
| 7 Principals (elementary or secondary). | 8 | 29 | 9 | 2 | 139 | 4 | 14 | 9 | 2 | 78 |
| 8 Teachers (heads or directors of departments). | 1 | 1 | 2 | 0 | 11 | 0 | 0 | 0 | 2 | 2 |

## APPENDIX A (continued)

Table 30 (continued)

| | Metropolitan Kansas City | | | | | Metropolitan Cincinnati | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1st | 2nd | 3rd | 4th | Weighted Total | 1st | 2nd | 3rd | 4th | Weighted Total |
| 9 Teachers. | 5 | 4 | 13 | 7 | 65 | 1 | 2 | 8 | 3 | 29 |
| 10 School counselors. | 0 | 0 | 1 | 1 | 3 | 0 | 0 | 1 | 0 | 2 |
| 11 Students. | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 4 |
| 12 Study or advisory committees or boards. | 4 | 1 | 2 | 0 | 23 | 1 | 2 | 7 | 1 | 25 |
| 13 State department of education guidelines, recommendations or directives. | 0 | 1 | 1 | 0 | 5 | | | | | |
| 14 School board associations, handbooks and journals. | 0 | 2 | 4 | 3 | 17 | 0 | 0 | 5 | 2 | 12 |
| 15 Professional (teacher) associations. | 0 | 0 | 3 | 0 | 6 | 0 | 0 | 0 | 1 | 1 |
| 16 Constituents and constituent groups (parents, PTA's, etc.) | 1 | 4 | 5 | 7 | 33 | 0 | 0 | 1 | 5 | 7 |
| 17 Conventions, school board workshops, and exhibits. | 0 | 1 | 0 | 1 | 4 | 0 | 0 | 2 | 2 | 6 |

## APPENDIX A (continued)

Table 30 (continued)

| | Metropolitan Kansas City | | | | | Metropolitan Cincinnati | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1st | 2nd | 3rd | 4th | Weighted Total | 1st | 2nd | 3rd | 4th | Weighted Total* |
| 18 Commercial interests (salesmen, architects, manufacturing representatives, etc.) | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 4 |
| 19 Outside consultants (university personnel, consulting services, etc.). | 0 | 0 | 2 | 0 | 4 | 0 | 1 | 0 | 1 | 4 |
| 20 Personal experience (i.e. "own research," "myself," "no one," "wife and children," "tradition," "general reading," "contacts," etc.) | 2 | 1 | 0 | 0 | 11 | 0 | 0 | 1 | 0 | 2 |
| 21 Other. | 0 | 2 | 1 | 0 | 8 | 0 | 1 | 1 | 0 | 5 |

*The weighted total is determined by multiplying the number of responses in column 1, by four; in column 2, by three; in column 3, by 2; and in column 4, by 1 and summing the products. Thus for Metropolitan Cincinnati the weighted total for row 2 = 4(31) + 3(12) + 2(0) + 1(1) = 161.

## APPENDIX A (continued)

TABLE 31. --Source of guidance and information in purchasing matters

| | Metropolitan Kansas City | | | | | Metropolitan Cincinnati | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1st | 2nd | 3rd | 4th | Weighted Total | 1st | 2nd | 3rd | 4th | Weighted Total |
| 1 Other board members. * | 2 | 5 | 0 | 1 | 24 | 7 | 5 | 4 | 0 | 51 |
| 2 Superintendents. | 57 | 14 | 3 | 1 | 277 | 27 | 10 | 0 | 1 | 139 |
| 3 Asst. superintendents, directors or supervisors for instruction or curriculum. | | | | | | 0 | 1 | 1 | 0 | 5 |
| 4 Asst. superintendents, directors or supervisor for finance or business affairs; business manager; purchasing agent. | 13 | 14 | 1 | 0 | 96 | 9 | 7 | 0 | 1 | 58 |
| 5 Other members of central administrative staff | 10 | 15 | 5 | 1 | 95 | 8 | 10 | 1 | 0 | 64 |
| 6 School district employed specialists, consultants and coordinators. | 0 | 0 | 1 | 1 | 3 | | | | | |
| 7 Principals (elementary or secondary). | 5 | 17 | 9 | 1 | 90 | 3 | 4 | 6 | 1 | 37 |
| 8 Teachers (heads or directors of departments). | 1 | 1 | 4 | 0 | 15 | 0 | 0 | 0 | 2 | 2 |

## APPENDIX A (continued)

Table 31 (continued)

| | Metropolitan Kansas City | | | | | Metropolitan Cincinnati | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1st | 2nd | 3rd | 4th | Weighted Total | 1st | 2nd | 3rd | 4th | Weighted Total |
| 9 Teachers. | 2 | 4 | 5 | 3 | 33 | 0 | 1 | 2 | 2 | 9 |
| 10 School counselors. | | | | | | | | | | |
| 11 Students. | 0 | 0 | 1 | 0 | 2 | | | | | |
| 12 Study or advisory committees or boards. | | | | | | 0 | 2 | 1 | 1 | 8 |
| 13 State departments of education guidelines, recommendations or directives. | | | | | | | | | | |
| 14 School board associations, handbooks and journals. | 0 | 0 | 1 | 1 | 3 | | | | | |
| 15 Professional (teacher) associations. | | | | | | 0 | 0 | 1 | 0 | 2 |
| 16 Constituents and constituent groups (parents, PTA's, etc.) | 0 | 0 | 1 | 0 | 2 | | | | | |
| 17 Conventions, school board workshops, and exhibits. | | | | | | 0 | 1 | 1 | 0 | 5 |

## APPENDIX A (continued)

Table 31 (continued)

| | Metropolitan Kansas City | | | | | Metropolitan Cincinnati | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1st | 2nd | 3rd | 4th | Weighted Total | 1st | 2nd | 3rd | 4th | Weighted Total |
| 18 Commercial interests (salesmen, architects, manufacturing representatives, etc.) | 2 | 2 | 1 | 1 | 17 | 0 | 0 | 5 | 1 | 10 |
| 19 Outside consultants (university personnel, consulting services, etc.). | | | | | | | | | | |
| 20 Personal experience (i.e. "own research," "myself," "no one," "wife and children," "tradition," "general reading," "contacts," etc.) | 4 | 3 | 2 | 0 | 29 | 0 | 0 | 0 | 1 | 0 |
| 21 Other. | 0 | 1 | 1 | 0 | 5 | 0 | 0 | 2 | 1 | 5 |

---

*Many responses from Metropolitan Cincinnati made reference to the board clerk as the board's purchasing agent or business manager. There is reason to believe, therefore, that for metropolitan Cincinnati this category is unduly weighted at the expense of category five or six.

# APPENDIX B

## SAMPLE OF SCHOOL DISTRICTS: METROPOLITAN KANSAS CITY

### Central City:

| | |
|---|---|
| Kansas City, Kansas | Unified #500 |
| Kansas City, Missouri | #33 |

### Suburban:
### (and suburban-like)

| | |
|---|---|
| Shawnee-Mission, Kansas | Unified #512 |
| Turner, Kansas | Unified #202 |

| | |
|---|---|
| Blue Springs, Missouri | Reorganized #4 |
| Center, Missouri | #58 |
| Grandview, Missouri | Consolidated #4 |
| Independence, Missouri | #30 |
| Lee's Summit, Missouri | Reorganized #7 |
| Liberty, Missouri | #53 |
| North Kansas City, Missouri | #74 |
| Parkville, Missouri | Reorganized #5 |
| Raytown, Missouri | Consolidated #2 |

### Urban Fringe:

| | |
|---|---|
| Bonner Springs, Kansas | #204 |
| Gardner, Kansas | #231 |
| Leavenworth, Kansas | Unified #453 |
| Olathe, Kansas | #233 |
| Stanley, Kansas | Unified #229 |
| Tonganoxie, Kansas | Unified #464 |

| | |
|---|---|
| Belton, Missouri | #124 |
| Fort Osage, Missouri | Reorganized #1 |
| Platte City, Missouri | Reorganized #3 |
| Raymore-Peculiar, Missouri | Reorganized #2 |
| West Platte, Missouri | Reorganized #2 |

## APPENDIX B (continued)

## SAMPLE OF SCHOOL DISTRICTS: METROPOLITAN CINCINNATI

Central City:

- Cincinnati City

Suburban:
(and suburban-like)

- Finneytown
- Forest Hills
- Great Hills-Forest Park
- Indian Hill
- Lincoln Heights*
- Madeira
- Mariemont
- Mount Healthy
- Norwood
- Reading
- St. Bernard
- Sycamore
- Wyoming

Urban Fringe:

- Northwest
- Southwest
- Three Rivers

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*Since this study was made, Lincoln Heights has been absorbed by the Princeton School District by mandate of the Ohio Legislature.

# APPENDIX C

University of Missouri - Kansas City

Nelson House
Kansas City, Missouri 64110

SCHOOL OF EDUCATION
Center For The Study of
Metropolitan Problems in Education

Telephone
816 276-2718

October 27, 1969

Dear :

This questionnaire is intended to ask you, a school board member, to express your opinions about inter-school district cooperation. Its main purpose is to learn more about which school district functions school board members think are appropriate for cooperative action with other school districts and which functions should be restricted to autonomous, local action.

Responding to the questionnaire will take very little of your time and your personal anonymity as well as that of your district will be rigorously protected. Please feel free to indicate your opinions openly and candidly.

The study has been sanctioned by the Missouri School Boards Association (letter of endorsement is attached). The data will be used in writing my doctoral dissertation. The dissertation itself will be distributed as a report from the Center for the Study of Metropolitan Problems in Education.

The questionnaire will ask for:

1. some background information.
2. your opinions about inter-district cooperation for performing specific functions.
3. other districts or agencies with which you would be willing to cooperate.

Each of your colleagues on the board has received a questionnaire as have the school board members of other major school districts throughout the metropolitan area. I would be most grateful to each of you for your participation. A summary report of the results of this study will be sent to each participating school board member as soon as it becomes available.

Please try to return the questionnaire as soon as you can, if possible by November 12. Thank you.

Very truly yours,

Robert P. Fain

**MISSOURI SCHOOL BOARDS ASSOCIATION**

225 Mark Twain Hall, Columbia, Missouri 65201
Telephone 314 449-8058 - 449-3222

**EXECUTIVE COMMITTEE**

Fred Zaiser, President
1500 West Broadway
West Plains, Missouri 65775

George Berkemeier,
Vice-President
3210 Lee's Summit Road
Independence, Missouri 64055

Arvil Adams
807 East Sixth Street
Portageville, Missouri 63873

Edwin Bihr
900 West Broadway
Columbia, Missouri 65201

Dr. Raymond Freese
Route 1
Foristell, Missouri 63348

Russell Joiner
1831 East Fourth Street
Trenton, Missouri 64683

Dr. Richard Keith
1700 South Lewis
Kirksville, Missouri 64501

Henry Poindexter
TenMain Building
Kansas City, Missouri 64105

Elmer W. Pounds
6719 Oleatha Avenue
St. Louis, Missouri 63109

Mrs. Jean Sohosky
2835 East Fifteenth Street
Joplin, Missouri 64801

Executive Secretary
Dr. James E. Hart
Associate Executive Secretary
A. R. Deppe
Assistant Executive Secretary
E. R. Dalrymple

Dear School Board Member:

I have examined the research proposal of Mr. Robert P. Fain. It appears to me that this research will represent a worth-while contribution to knowledge in the field of Educational Administration and may have implications for the improvement of education in Missouri and surrounding states.

It appears that completion of the questionaire will take very little of your time but as a board member your cooperation is important and will contribute to the value of the study. I urge you to cooperate with Mr. Fain by providing the information which he is requesting.

Sincerely,

James E. Hart

James E. Hart
Executive Secretary

JEH:bw

OSBA
Ohio School Boards Association

3752 N. HIGH ST.
COLUMBUS, OHIO 43214
614-267-5436

Dear School Board Member:

I have given my endorsement to a dissertation research study being conducted by Robert Fain, an assistant at the Center for the Study of Metropolitan Problems in Education at the University of Missouri - Kansas City. Its purposes will be to learn more about school board members' attitudes toward co-operation among school districts in metropolitan areas.

The enclosed form will take very little of your time to complete and as a board member your co-operation is very important and is sorely needed.

It appears to me that this study will have potentially significant implications for public education and the study of educational administration. I urge you to co-operate with Mr. Fain by providing the information he is requesting.

Sincerely,

Lewis E. Harris

Lewis E. Harris
Executive Director

LEH:pb

SERVING THE SCHOOL BOARDS of OHIO

# APPENDIX D

## SCHOOL BOARD SURVEY

I. Please indicate which of the following categories describes best your situation as regards: (A) tenure on the board; (B) educational background; and (C) occupation.

A. Tenure on the board (circle the number which best represents your years of service on board):

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 or more

B. Educational background (circle highest level completed):

| | |
|---|---|
| Junior High School | High School |
| 7 8 9 | 10 11 12 |
| College | Graduate School |
| 1 2 3 4 | 1 2 3 4 |

C. Occupation:

1. What is your occupation or profession: ____________________

____________________________________________

2. Please describe the kind of work you do in your occupation or profession:

____________________________________________

____________________________________________

II. Please read the following three items carefully and indicate the extent of your agreement or disagreement to each statement by placing an "X" somewhere between the terms "strongly agree" and "strongly disagree" depending on how strongly you feel about what the statement says.

A. State departments of education should take a more vigorous role in persuading local school districts to implement educational programs which have been shown throughout the nation to have educational value.

Strongly agree ____:____:____:____:____:____ Strongly disagree

B. When selecting a new superintendent, it is probably more advantageous for the school district to select a candidate from inside the district rather than going outside to look for one.

Strongly agree ____:____:____:____:____:____ Strongly disagree

C. Criticism of local school boards, on the grounds that they are not well enough informed of the progress in educational innovations throughout the nation, is probably justified.

Strongly agree ____:____:____:____:____:____ Strongly disagree

D. (Optional)
If you would care to comment on your response to any or all of the statements in Section II, please do so.

____________________________________________

____________________________________________

____________________________________________

## APPENDIX D (continued)

III. For each of the selected school district functions below, please indicate — by marking the appropriate box — your response to the following statement:

> "Assuming there were no legal restraints, my reaction to a proposal for my school district to share the costs and the responsibility with one or more other school districts in the area for performing each of the following school district functions would be . . ."

| | Very Favorable | Favorable | More Favorable than Unfavorable | Less Favorable than Unfavorable | Unfavorable | Very Unfavorable |
|---|---|---|---|---|---|---|
| A. Providing special remedial reading programs and speech correction. | | | | | | |
| B. Establishing a data processing facility. | | | | | | |
| C. Evaluating the educational program. | | | | | | |
| D. Determining teacher salary schedules. | | | | | | |
| E. Selecting school sites. | | | | | | |
| F. Providing health services. | | | | | | |
| G. Providing educational radio and TV. | | | | | | |
| H. Construction of schools and buildings. | | | | | | |
| I. Acquiring operating funds. | | | | | | |
| J. Selecting and purchasing classroom supplies. | | | | | | |
| K. Planning and operating student extra-curricular activity programs. | | | | | | |
| L. Providing educational programs for culturally disadvantaged. | | | | | | |
| M. Coordinating the assignment of teachers to schools. | | | | | | |

IV. A. For those functions for which you indicated favorable opinions about inter-district cooperation, with which school district or districts in your region would you prefer to work out cooperative arrangements?

If you can, list districts in order of preference. If you prefer no particular district over others, write them horizontally across the top line.

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

B. Are there any local governments or agencies (e.g., planning departments, social service agencies, etc.) other than school districts, with which you would seriously consider making cooperative arrangements for performing particular functions?

| Functions (see above for examples): | Agencies: |
|---|---|
| ______________________ | ______________________ |
| ______________________ | ______________________ |
| ______________________ | ______________________ |
| ______________________ | ______________________ |
| ______________________ | ______________________ |

## APPENDIX D (continued)

V. A. How do you think each of the following persons or groups would, as a whole, react to the views you have expressed in this questionnaire? (Please check the appropriate box.)

| | Very Favorable and Supportive | Favorable and Supportive | Probably More Favorable than Unfavorable | Probably Less Favorable than Unfavorable | Unfavorable and Non-supportive | Very Unfavorable and Non-supportive |
|---|---|---|---|---|---|---|
| The Superintendent of our district | | | | | | |
| My fellow board members | | | | | | |
| My constituents | | | | | | |

B. If you classified more than one of the above as "very favorable and supportive" or "favorable and supportive" which do you think would be most favorable toward your point of view. (Please check the appropriate box.)

The Superintendent ☐
Fellow board members ☐
My constituents ☐

C. In developing policy or making decisions for this school district in areas such as curriculum development, where or from whom do you personally get needed information? (When referring to individuals please use a title or some identification other than their name, e.g., High School Principal, Science teacher, PTA President, etc.)

List source of guidance or information in their order of importance to you.

1. ____________________
2. ____________________
3. ____________________
4. ____________________

D. In developing policy or making decisions for this school district in areas such as purchasing equipment and supplies, where or from whom do you personally get needed information? (When referring to individuals please use a title or some identification other than their names, e.g., High School Principal, Science teacher, PTA President, etc.)

List source of guidance or information in their order of importance to you.

1. ____________________
2. ____________________
3. ____________________
4. ____________________

Please go to next page.

VI. Please read each of the following cases carefully and indicate the extent of your agreement or disagreement with the proposals presented in each case by placing an "X" somewhere between the terms "complete agreement" and "complete rejection" depending on how strongly you feel about the situation presented.

A. 1. Difficulty in acquiring adequate operating funds from a single district tax base has prompted a citizens group to ask your board and other neighboring school boards to consider working together in some way, for the purpose of levying a school tax on a much broader tax base. The funds thus acquired would be divided among the participating districts in an equitable fashion. What would be your response to such a proposal?

Complete agreement _____:_____:_____:_____:_____:_____ Complete rejection

2. Please indicate, briefly, the reasons for your position.

B. 1. At a convention of state school board associations, a plan for area-wide purchasing of school equipment and supplies was brought up for discussion. The discussion tended to revolve about the issues of economy, which would be available through volume purchasing and centralized storage; the unique needs of specific school districts; and the possibility of bureaucratic entanglements. What would be your reaction to such a plan?

Complete agreement _____:_____:_____:_____:_____:_____ Complete rejection

2. Please indicate, briefly, the reasons for your position.

C. 1. An area-wide planning authority has taken the position that school districts, when selecting and purchasing school sites, should consult with them about how well that site, for school use, fits into the long-range development plans of the area in terms of parks, sewers, streets, fire protection, industrial location, etc. What would be your reaction to the planning authority's position?

Complete agreement _____:_____:_____:_____:_____:_____ Complete rejection

2. Please indicate, briefly, the reasons for your position.

D. 1. A respected civic organization has presented a proposal to the school board, of which you are a member, to implement a reciprocal teacher placement plan with several other districts located in your area. This plan, in effect, pools the teacher talent of the participating districts and establishes a multi-district agency to coordinate the assignment of those teachers, who may volunteer to do so, to the situation in any school district which might best use his or her talents and qualifications. What would be your position on such a proposal?

Complete agreement _____:_____:_____:_____:_____:_____ Complete rejection

2. Please indicate, briefly, the reasons for your position.

# APPENDIX E

## STATISTICAL PROGRAMS

### Update and Utility Package

```
LIST

 03/14/70. 11.01.36.
PROGRAM   DATAUL

100 PROGRAM DATAUL(INPUT,OUTPUT,TAPE1,TAPE2)
110 DIMENSION A(8)
115 REWIND 2
120 REWIND 1
130 23 CALL RETR(1,5HDATA1)
140 22 PRINT,* INPUT CODE (1=ADD,2=UPDATE,3=DELETE,4=LIST,5=CREATE,*
145+*6=END)*
150 READ 2, IAN
160 2 FORMAT (I1)
170 GO TO (100,25,25,25,110,700),IAN
180 100 READ (1) (A(I),I=1,5)
190 IF (ENDFILE 1)109,100
195 109 BACKSPACE 1
200 110 PRINT,*   X    X    X    X    X    X    X    X    X    X    X
210 READ 19,(A(I),I=1,5)
230 19 FORMAT (5A10)
240 WRITE (1) (A(I),I=1,5)
250 PRINT ,*1=MORE,0=NO MORE*
260 READ 2, JAK
270 IF (JAK-1) 120,110,120
280 120 ENDFILE 1
290 REWIND 1
295 CALL REPL(1,5HDATA1)
300 GO TO 22
310 25 PRINT, * INPUT RECORD DESC. NO. (XXXX)*
320 READ 4, ICOM
330 4 FORMAT (A4)
340 150 READ (1) (A(I),I=1,5)
345 IF (ENDFILE 1)32,152
350 152 DECODE (10,17,A)IC,IC1
360 17 FORMAT (A4,A6)
370 IF (ICOM-IC) 155,60,155
375 155 IF (IAN-3) 156,156,150
380 156 WRITE (2) (A(I),I=1,5)
385 GO TO 150
390 32 PRINT , * RECORD NOT FOUND*
400 REWIND 1
410 GO TO 22
420 60 IF (IAN-3) 200,300,400
435 200 PRINT,*INPUT A 50 CHAR. RECORD*
440 PRINT,*  X    X    X    X    X    X    X    X    X    X    X*
450 READ 19, (A(I),I=1,5)
```

## APPENDIX E (continued)

```
470 210 WRITE (2) (A(I),I=1,5)
480 300 READ (1) (A(I),I=1,5)
490 IF (ENDFILE 1)220,210
500 220 ENDFILE 2
510 REWIND 2
520 REWIND 1
530 CALL REPL(2,5HDATA1)
540 GØ TØ 23
620 400 PRINT, * INPUT ENDING RECØRD DESC. NØ. (XXXX)*
630 READ 4, KURT
640 PRINT,*X   X   X   X   X   X   X   X   X   X   X*
650 410 PRINT 19, (A(I),I=1,5)
670 IF (KURT-IC) 420,440,420
680 420 READ (1) (A(I),I=1,5)
700 DECØDE (10,17,A)IC,IC1
710 IF (ENDFILE 1)440,410
720 440 REWIND 1
730 GØ TØ 22
740 700 STØP
760 END

RUN CØMPLETE.
```

### Non-parametric Statistics Package

```
LIST

 03/14/70. 11.06.17.
PRØGRAM   NPSTAT

00100 PRØGRAM NPSTAT(INPUT,ØUTPUT,TAPE1)
00110 DIMENSIØN X(130,3),Y(130,3),Z(3),A(130,5),JAKE(35),A1(5)
00120 CALL RETR(1,5HDATA1)
00130 PRINT, *INPUT NØ. ØF ØBSERVATIØNS (XXX)*
00140 READ 1, N
00150 1 FØRMAT (I3)
00160 I=3
00165 M=2
00166 K=3
00170 PRINT,*INPUT CØDE, (1=DISK INPUT,2=TERMINAL INPUT)*
00171 READ,KK
00172 IF (KK-2) 30,40,205
00173 40 DØ 50 J=1,N
00174 50 READ 3,(A(J,L),L=1,5)
00175 3 FØRMAT (5A10)
00176 GØ TØ 130
00177 30 REWIND 1
```

## APPENDIX E (continued)

```
00180 DØ 100 J=1,N
00190 READ (1) (A(J,L),L=1,5)
00200 IF (ENDFILE 1)500,100
00250 100 CØNTINUE
00260 130 PRINT , /,/
00262 PRINT,*INPUT CØDE (1=SPEARMAN,2=WILCØXØN,3=MEAN,STD.,R,4=ALL,*,
00265+*5=END,6=MANN-W U)*
00270 READ,JJ
00275 IF (JJ-5) 135,205,135
00280 135 PRINT,*INPUT VARIABLE NUMBERS (XX,XX)*
00290 READ,M1,K1
00292 M2=M1+1
00294 K2=K1+1
00300 DØ 140 J=1,N
00310 DØ 150 L=1,5
00320 150 A1(L)=A(J,L)
00330 DECØDE (49,2,A1)JAKE
00340 2 FØRMAT (I4,I1,5I2,3I1,I2,13I1,4I2,7I1)
00350 X(J,2)=JAKE(M2)
00360 X(J,3)=JAKE(K2)
00370 140 CØNTINUE
00380 GØ TØ (201,202,203,201,205,206),JJ
00390 201 CALL SPEAR(X,Y,I,N,R,T,NDF,Z,M,K)
00400 IF (JJ-4) 130,202,130
00405 202 CALL WILCØX(X,Y,I,N,U,STD,ZZ,Z,P,M,K)
00406 IF (JJ-4) 130,203,130
00407 203 CALL AVSDR(X,Y,I,N,Z,M,K)
00410 GØ TØ 130
00412 206 CALL MANNWU(X,Y,I,N,U,N1,N2,Z,ZZ,M,K)
00414 GØ TØ 130
00420 500 PRINT,* FILE ERRØR*
00430 205 STØP
00440 END
01000 SUBRØUTINE RANK (X,Y,I,N,Z)
01010 DIMENSIØN X(130,3),Y(130,3),Z(3)
01020 DØ 20 J=1,I
01025 Z(J)=0.0
01030 DØ 30 K=1,N
01040 30 Y(K,J)=0.0
01050 20 CØNTINUE
01060 DØ 40 J=1,I
01070 DØ 50 K=1,N
01080 IF (Y(K,J)) 60,60,50
01090 60 VAR=X(K,J)
01100 REQU=0.0
01110 RLES=0.0
01120 DØ 70 L=1,N
01130 IF (X(L,J)-VAR) 80,90,70
01140 80 RLES=RLES+1.0
01150 GØ TØ 70
01160 90 REQU=REQU+1.0
01170 Y(L,J)=-99.
01180 70 CØNTINUE
```

```
01190 IF (REQU-1.0) 100,100,110
01200 100 Y(K,J)=RLES+1.0
01210 GØ TØ 50
01220 110 AVG =RLES+((REQU+1.0)/2.0)
01230 DØ 120 L=1,N
01240 IF (Y(L,J)+99.) 120,130,120
01250 130 Y(L,J)=AVG
01260 120 CØNTINUE
01265 Z(J)=Z(J)+(REQU*REQU*REQU-REQU)/12.0
01270 50 CØNTINUE
01280 40 CØNTINUE
01290 RETURN
01300 END
01310 SUBRØUTINE SPEAR(X,Y,I,N,R,T,NDF,Z,M,K)
01320 DIMENSIØN X(130,3),Y(130,3),Z(3)
01330 CALL RANK (X,Y,I,N,Z)
01340 D=0.0
01350 DØ 10 J=1,N
01355 DD=Y(J,M)-Y(J,K)
01360 10 D=D+DD*DD
01370 XN=N
01380 XN=(XN*XN*XN-XN)
01390 IF(Z(M))40,20,40
01400 20 IF(Z(K))40,30,40
01410 30 R=1.0-(6.0*D)/XN
01420 GØ TØ 50
01430 40 XN=XN/12.0
01440 XM=XN-Z(M)
01450 XK=XN-Z(K)
01460 R=(XM+XK-D)/(2.0*(XM*XK)**.5)
01470 50 T=0.0
01480 IF (N-10) 70,80,80
01490 80 XN=N-2
01500 T=(R)*((XN/(1.0-R*R))**(.5))
01510 70 NDF=N-2
01511 PRINT 2,R
01512 2 FØRMAT (*SPEARMAN CØRRELATIØN CØEFF. =*,F7.5)
01513 PRINT 3, T,NDF
01514 3 FØRMAT (*T TEST FØR R =*,F10.5,*    NDF =*,I4)
01520 RETURN
01530 END
01540 SUBRØUTINE WILCØX(X,Y,I,N,U,STD,ZZ,Z,P,M,K)
01550 DIMENSIØN X(130,3),Y(130,3),Z(3)
01560 DØ 10 J=1,N
01570 10 X(J,1)=X(J,M)-X(J,K)
01580 J=1
01590 CALL RANKW(X,Y,J,N,Z)
01600 TN=0.0
01610 TZ=N
01620 TP=0.0
01630 DØ 20 J=1,N
01640 IF(X(J,1))30,50,40
```

```
01650 30 TN=TN+Y(J,1)
01660 GØ TØ 20
01670 40 TP=TP+Y(J,1)
01680 GØ TØ 20
01690 50 TZ=TZ-1
01700 20 CØNTINUE
01710 IF(TN-TP)60,70,70
01720 60 T=TN
01730 GØ TØ 80
01740 70 T=TP
01750 80 U=(TZ*(TZ+1.0))/4.0
01760 STD=((TZ*(TZ+1.0)*(2.0*TZ+1.0))/24.0)**.5
01770 ZZ=(T-U)/STD
01780 W=ABS(ZZ)
01790 W=1.0/(1.0+.2316419*W)
01800 P=(EXP(-ZZ*ZZ/2.0))*.3989423
01810 P=1.0-P*W*((((1.330274*W-1.821256)*W+1.781478)*W-.3565638)
01820+ *W+.3193815)
01830 IF (ZZ) 90,100,100
01840 90 P=1.0-P
01850 100 PRINT 2, ZZ
01852 2 FØRMAT (*WILCØXØN STANDARDIZED NØRMAL SCØRE (Z) =*,F10.5)
01854 PRINT 3,P
01856 3 FØRMAT (*PRØBABILITY ØF Z AS EXTREME =*,F10.7)
01858 RETURN
01860 END
01870 SUBRØUTINE RANKW (X,Y,I,N,Z)
01880 DIMENSIØN X(130,3),Y(130,3),Z(3)
01890 DØ 20 J=1,I
01895 Z(J)=0.0
01900 DØ 30 K=1,N
01910 30 Y(K,J)=0.0
01920 20 CØNTINUE
01930 DØ 40 J=1,I
01940 DØ 50 K=1,N
01950 IF (Y(K,J)) 60,60,50
01960 60 VAR=ABS(X(K,J))
01970 IF(VAR)65,50,65
01980 65 REQU=0.0
01990 RLES=0.0
02000 DØ 70 L=1,N
02010 XTEST=ABS(X(L,J))
02015 IF (XTEST) 70,70,75
02020 75 IF (XTEST-VAR) 80,90,70
02030 80 RLES=RLES+1.0
02040 GØ TØ 70
02050 90 REQU=REQU+1.0
02060 Y(L,J)=-99.
02070 70 CØNTINUE
02080 IF (REQU-1.0) 100,100,110
02090 100 Y(K,J)=RLES+1.0
02100 GØ TØ 50
```

## APPENDIX E (continued)

```
02110 110 AVG =RLES+((REQU+1.0)/2.0)
02120 DØ 120 L=1,N
02130 IF (Y(L,J)+99.) 120,130,120
02140 130 Y(L,J)=AVG
02150 120 CØNTINUE
02155 Z(J)=Z(J)+(REQU*REQU*REQU-REQU)/12.0
02160 50 CØNTINUE
02170 40 CØNTINUE
02180 RETURN
02190 END
02200 SUBRØUTINE AVSDR(X,Y,I,N,Z,M,K)
02210 DIMENSIØN X(130,3),Y(130,3),Z(3)
02220 DØ 20 J=1,I
02230 Z(J)=0.0
02240 DØ 30 JK=1,2
02250 30 Y(JK,J)=0.0
02260 20 CØNTINUE
02270 DØ 40 J=1,N
02280 Y(1,M)=Y(1,M)+X(J,M)
02290 Y(1,K)=Y(1,K)+X(J,K)
02300 Y(2,M)=Y(2,M)+X(J,M)*X(J,M)
02310 Y(2,K)=Y(2,K)+X(J,K)*X(J,K)
02320 40 Z(1)=Z(1)+X(J,M)*X(J,K)
02330 XN=N
02340 Y(1,M)=Y(1,M)/XN
02350 Y(1,K)=Y(1,K)/XN
02355 XN1=XN-1
02360 Y(2,M)=((Y(2,M)/XN1)-(Y(1,M)*Y(1,M)*XN/XN1))**(.5)
02370 Y(2,K)=((Y(2,K)/XN1)-(Y(1,K)*Y(1,K)*XN/XN1))**(.5)
02380 Z(1)=(Z(1)-XN*Y(1,M)*Y(1,K))/(XN1*Y(2,M)*Y(2,K))
02385 Z(2)=Z(1)*Z(1)
02394 PRINT 3, Y(1,M),Y(1,K)
02396 3 FØRMAT (* MEANS = *,2F12.4)
02398 PRINT 4, Y(2,M),Y(2,K)
02400 4 FØRMAT (* STD. DEVIATIØN = *,2F12.4)
02402 PRINT 5, Z(1),Z(2)
02404 5 FØRMAT (* CØRRELATIØN CØEFF. R AND R↑2 =*,2F10.5)
02410 RETURN
02430 END
02500 SUBRØUTINE MANNWU(X,Y,I,N,U,N1,N2,Z,ZZ,M,K)
02510 DIMENSIØN X(130,3),Y(130,3),Z(3)
02520 CALL RANK(X,Y,I,N,Z)
02530 PRINT,*INPUT 1ST VARIABLE LØW AND HIGH SCØRES WHICH DEFINES*
02540 PRINT,*INCLUSIVE 2ND VAR. SET TØ TEST AGAINST REMAINING PØP.*
02545+,* (XX.X,XX.X)*
02550 READ,S1,S2
02560 N1=0
02570 N2=0
02580 R1=0.0
02590 R2=0.0
02600 ZZ=0.0
02610 DØ 30 L=1,N
02620 IF (X(L,M)-S1) 40,60,50
```

```
02630 40 N1=N1+1
02640 R1=R1+Y(L,K)
02650 GO TO 30
02660 50 IF (X(L,M)-S2) 60,60,40
02670 60 N2=N2+1
02680 R2=R2+Y(L,K)
02690 30 CONTINUE
02700 XN=N
02710 XN1=N1
02720 XN2=N2
02730 XNN=XN1*XN2
02740 U1=XNN-R1+XN1*(XN1+1.0)/2.0
02750 U2=XNN-R2+XN2*(XN2+1.0)/2.0
02760 IF (U1-U2) 70,70,80
02770 70 U=U1
02780 GO TO 90
02790 80 U=U2
02800 90 R1 =U-XNN/2.0
02810 IF (N1-20) 100,110,110
02820 100 IF (N2-20) 150,110,110
02830 110 IF (Z(K)) 130,120,130
02840 120 ZZ=(R1)/(((XNN*(XN+1.0))/12.0)**(.5))
02850 GO TO 150
02860 130 XN1=XNN/(XN*(XN-1.0))
02870 XN2=((XN*XN*XN-XN)/12.0)-Z(K)
02880 ZZ=(R1)/((XN1*XN2)**(.5))
02890 150 PRINT 3, U
02900 3 FORMAT (*MANN-WHITNEY U =*,F10.3)
02910 PRINT 4,N,N1,N2
02920 4 FORMAT (*N,N1 AND N2 =*,3I6)
02930 PRINT 5,ZZ
02940 5 FORMAT (*Z =*,F10.4)
02950 RETURN
02960 END

RUN COMPLETE.

BYE


R800001   LOG OFF.   11.19.04.
```

# VITA

Robert P. Fain was born in Kansas City, Missouri, July 8, 1938. He was educated in the Kansas City public schools. After high school,he entered Kansas City Junior College,but left during his freshman year to serve on active duty in the United States Marine Corps. After his discharge,he entered Kansas City University and graduated with a Bachelor of Science degree in Biology in 1962. He worked in the North Kansas City public schools as a teacher until 1966 while earning a Master of Arts degree in Educational Administration. In the fall of 1966 he entered the University of Missouri at Kansas City as a doctoral student. He was admitted to candidacy for the degree of Doctor of Philosophy in October, 1969. In the meantime he worked as a graduate assistant in the Division of Educational Administration, and a research assistant and project coordinator at the Center for the Study of Metropolitan Problems in Education.